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वैदिक धर्म के अमूल्य ग्रन्थ ।

[१] योग—साधन—माला ।

- (१) संध्योपासना । योग की रीति से संध्या करने की पद्धति । मूल्य १॥ डेढ़ रु०
- (२) संध्या का अनुष्ठान । मूल्य ॥ आठ आने
- (३) वैदिक-प्राण-विद्या । प्राणायामपूर्वार्थ ।
मूल्य ॥ एक रु०

- (४) ब्रह्मार्थ । सचित्र । वीर्यरक्षण के उपाय । मूल्य ॥ सवा रु० ।

[२] उपनिषद्—ग्रन्थ—माला ।

- (१) “ईश” उपनिषद् की व्याख्या ।
मूल्य ॥ चौदह आने ।
- (२) “केन” उपनिषद् की व्याख्या ।
मूल्य ॥ सवा रु० ।

[३] आगम—निवंध—माला ।

- (१) वैदिक-राज्य-पद्धति । मूल्य ॥ पांच आने
- (२) मानवी-आयुष्य । मूल्य ॥ चार आने
- (३) वैदिक सभ्यता । मूल्य ॥ तीन आने
- (४) वैदिक-चिकित्सा-शास्त्र । मूल्य ॥
चार आने ।

- (५) वैदिक स्वराज्य की महिमा ।
मूल्य ॥ आठ आने ।

- (६) वैदिक सर्पविद्या । मूल्य ॥ आठ आने
- (७) मृत्यु को दूर करने का उपाय ।
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- (८) वेद में चरखा । मूल्य ॥ आठ आने

- (९) शिवसंकल्प का विजय । मूल्य ॥
बारह आने ।

- (१०) वैदिक धर्म की विशेषता । मूल्य ॥
आठ आने ।

[४] स्वयं—शिक्षक—माला ।

- (१) वेद का स्वयं शिक्षक । प्रथम भाग
मूल्य १॥ डेढ़ रु० ।
- (२) वेद का स्वयंशिक्षक । द्वितीय भाग
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[५] देवता—परिचय—ग्रन्थ—माला ।

- (१) रुद्रदेवता का परिचय । मूल्य ॥ आठ आने
- (२) क्रुग्रेद में रुद्र देवता । मूल्य ॥ दस आने
- (३) ३देवताओंका विचार मूल्य ॥ तीन आने
- (४) देवता-विचार । मूल्य ॥ तीन आने ।

[६] धर्म—शिक्षा के ग्रन्थ ।

- (१) बालकों की धर्म-शिक्षा । प्रथम भाग
मूल्य ॥ एक आना ।
- (२) बालकों की धर्म-शिक्षा । द्वितीय भाग
मूल्य ॥ दो आने ।
- (३) वैदिक-पाठ-माला । प्रथम पुस्तक
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[७] यजुर्वेद का स्वाध्याय ।

- (१) यजु०अ० ३० । नरमेध मूल्य ॥ एक रु०
- (२) यजु०अ० ३२ । एक ईश्वर उपासना ।
मूल्य ॥ आठ आने ।
- (३) यजु० अ० ३६ । शांति का उपाय ।
मूल्य ॥ आठ आने ।

[८] ब्राह्मण—बोध—माला ।

- (१) शतपथबाधामृत । मूल्य ॥ चार आने
- (७) वैदिक धर्म ।

यह सचित्र मासिक पत्र वैदिक धर्म के तत्त्व ज्ञान का विचार और प्रचार कर रहा है। योग साधन विषयक लेख भी सब को करने योग्य सुगम रीति के साथ इसमें प्रसिद्ध होने हैं। वायिक मूल्य ३॥ साढ़े तीन रु० है। शीघ्र मंगवाइये।

मन्त्री—स्वाध्याय मंडल, औंध (जि० सातारा) ।

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VEDIC MAGAZINE

सर्वेषामेव दानानां ब्रह्म दानं विशिष्यते । (मनु०)

Of all gifts that of Divine knowledge is the highest and noblest.

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Ancient Indian Engineering Philosophy.

(BY RAO SAHIB K. V. VAZE I. C. E.)

CHAPTER XIII.

AMENITIES.

अमर्त्याश्चापि मर्त्याश्च यत्र वसन्ति हि ॥
तद्वस्तिवति मतं तज्ज्ञै स्तद्वभेदं च वदाम्यहं ॥
भूमि प्रासाद यानानि शयनं तच्चतुर्विधं ॥
प्रासादादीनि वास्तुनि वस्तुत्वाद्वस्तुसंवयात् ॥
वस्तुभि निर्मितत्वाच्च प्रोक्तान्येवं पुरातनैः ॥

मयवतः

Any substance in the cavity of which perishable or non-perishable things reside is called a thing वस्तु. Things are divided into four classes viz. (1) ground भूमि, (2) buildings प्रासाद, (3) conveyance यान, and (4) furniture शयन. All these are called वास्तु because they are composed of वस्तु.

भूमिस्तुद्विविधा प्रोक्ता गौणमंगीत्यनुक्रमात् ॥

प्रामादीन्येव गौणानि भवन्त्यंगी महीमता ॥

(a) अष्टधनुश्चतुरखा काकणिका तच्चतुर्गुणं माषम्
माषचतुर्वर्तनकं तत्पंचगुणं हि वाणिका कथिता ॥
वाणिक्या युग्मणिता श्राम कुटुं बावनिः श्रेष्ठा ॥
एवं भूगतमानं, दंडैस्तेपां तु वक्ष्यते मानम् ॥

मयमतः

(b) उन्नतां प्रकृति भूमि कृत्वा हस्तप्रमाणतः ॥

घनी कृत्य तद्वर्वस्थं उपानं जन्म चोच्यते ॥

अलिहाश्चावलिदाश्च गर्भभूम्यनु सारतः ॥

समसूचा न कर्तव्याः किञ्चिन्न्यूनाधिकं भवेत् ॥

शिल्पदीपकः

(a) Ground is classed under two heads viz. गौण natural and अङ्गी artificial fields, gardens, village sites, forests

&c. are natural grounds and floors &c. are artificial grounds. Ground, eight धनुः square is called काकणिका a small patch, four काकणिका's make one माष, four माष make a वर्तनक, five वर्तनक make a वाटिका and four वाटिका make a ग्राम and so on. These are always measured in दंड. (b) Artificial grounds are to be made only in buildings. The natural ground surrounding a building is called प्रकृति and the ground floor of a building should be one hand higher than this. The back verandah floor, the front verandah floor and the central room floor should be each higher than the succeeding one. These should never be at one level.

विस्तारं स्तंभतो वाह्ये जन्मात्स्थृप्यं तमुन्नतं ॥
केचिदाशिखरांतं तु प्रवदंति तदुन्नतं ॥
विस्तारं तु त्रिधा कृत्वा चतुर्था गंतशायतं ॥
द्विधागं गृहविस्तारं भागसेकांगणं स्मृतं ॥
प्रागंगणमय श्रेष्ठ दक्षिणतश्चाप्यं गणं श्रेष्ठं ॥

शिल्पदीपक०

The length and breadth of a building is measured from outside of a post to outside of the post opposite, and the distance from the top of the foundations to the eave-board is called its height; some say that the height should be measured to the top of the ridge. The area allotted to a building should be divided into three parts; of these the building proper or the covered area should cover two parts while one part should be open to the skies. This open space should be situated to the east or south of the building; it may be in the centre of the building in the form of a quadrangle also.

सभा शाला प्रपारंगं मंडपं मंदिरं तथा ॥
प्रासादं इति विव्याता.....

हस्त्यश्वरथयोधानां यागहोमादि शिल्पिनाम् ॥
एक शाला प्रशस्ताश्यात्खीणां रूपोपजीविनाम् ॥
राक्षसे शश्व शाला स्याद् द्वारशाला च द्वारके ॥
अश्वलीलार्थकं किंवा गजलीलार्थकं भवेत् ॥
दक्षिणे चाष्टभागेस्यादंगणं च महांतरं ॥ मयमत् ॥

To the south of the building a large open space should be kept for exercising horses, elephants etc. (b) Buildings are divided into seven classes viz., सभा Residence Halls, शाला Sheds, प्रपा, Water rooms, रंग Playgrounds, मंडप Resting places, मन्दिर Temples and प्रासाद Courts Of these the construction of Residential buildings has been described up to now and those of Temples and Courts will be described under town-planning. Sheds are constructed for elephants, horses, carriages, soldiers or servants, sacrifices, fire-places, artisans, maid-servants, or actresses or harlots; a shed for arms and ammunitions should be built on the South-West and that for the guard near the entrance.

कर्तव्यं वास्तुमध्ये तु मंडपं प्रथमं वृथेः ॥
वास्तु व्यास चतुर्भागं मंडपस्य च विस्तृतम् ॥
मंडं सुभूषणं तं पातीति मंडपमुच्यते ॥
मंडपस्य च मध्येतु स्तंभंनैव प्रयोजयेत् ॥
द्विजवन्नृप वैश्यःनां वैशिष्ट्यं मध्यवेदिका ॥
त्रिकाल बलि लब्ध्वा च पुष्पगंत्रादि पूजिता ॥
वासार्थं मंडपं चैव यागमंउपमेव च ॥
अभिषेकादि योग्यं च नृत मंडपकं तथा ॥
वैवाहिकं च मैत्रं च तथोपनयनार्हकम् ॥
आस्थान मंडपं चैव बलालोकन मंडपम् ॥
संघिरार्यार्हकं क्षीरं भुक्ति कर्म सुखादिकम् ॥
पक्वेष्टकाभिः सुधया मंडपं द्विज भूषयोः ॥
वैश्यादीना मपक्वाभिः शूद्राणां तृपवेणुभिः ॥
मयमत्,

In the center of the quadrangle of a building one should first build a मंडप which should be one-fourth of the building in dimensions. The term मंडप means a thing that protects मंड the head from the sun or rain. In a मंडप there should be no post. Brahmins, Kshatriya and Vaishya houses should have a square platform (with तुलसी planted in it) in the quadrangle of their houses; this should be worshiped three times a day with flowers and offerings. मंडप is constructed for various purposes viz (1) for serving as halting places, (2) for performing sacrifices (3) for coronation ceremonies, (4) for dancing platforms, (5) for marriage, friendship or thread ceremonies, (6) for recreation purposes, (7) for inspection of troops or matches, (8) for discussing of treaties, (9) for hairdressing, and (10) for feasting parties. The मंडप of first and second class houses should be built of burnt bricks and lime, of third class buildings, of *katcha*, bricks, and of low class houses with grass and bamboos.

क्षनार्थं मंडपं वापि नृत्य मंडपं मेववा ॥
परिवारालयांतश्च कर्तव्यं स्वप्र माणतः ॥

A मंडप intended for bathing or dancing should be built of suitable dimensions within the enclosure of the building.

मंडपस्य पुरतोऽथ मध्यके वा जलाशय मनोक यंत्रकम्
इष्टिकाभिरुपलैरलंकृतं सावगृहं मुपगृहं वारिणम् ॥
प्रपा वा तत्र कर्तव्या नालिकेर दलच्छदा ॥
प्राग्वंशं मनुवंशं च नालिकेर दलादिभिः ॥
अन्यैरपि तथा पत्रैर्द्वयैराच्छादिता प्रपा ॥

In front of the मंडप or in its centre should be built a cistern with various water connections. These water connections or apparatuses should be built of bricks or stones and should have the water carefully covered by these. When these elaborate works are not possible near the मंडप a प्रपा or water shed should be built of bamboos and leaves of palms. If bamboos or palm leaves are not to be had this shed may be built of some similar cheap wood and grass or leaves.

अन्तरीक्षे भवेच्चुल्ली सत्यके स्यादुल्लब्धम् ॥
समं तुंगं च विपुलं चुल्लिकार्थं प्रशस्यते ॥
अभितो मञ्जनागारं उदीच्यामापवस्थायोः ॥
पानीयोरणोदकं धाम सर्वं प्रासादं वद्वुधैः ॥
नरशीर्षकवत् नृपस्य चुल्ली चतुरत्रादयुसदा.
मही सुराणाम् ॥
चतुरापतकाविशां, परेषां इतरेषां मितरेषु सर्वमिष्टम्
अन्नागारादि मध्यांतं वास्तुमध्ये प्रदक्षिणम् ॥
प्रासनपानायतनं कुर्यात्सम्य कतुलक्षणाभियुतम् ॥
शिल्पदीपक०

The fire-room should be situated in the north-west and the room for pounding and grinding corn in the south-west. All the चुल्ली or fire-place openings should be of the same height, and breadth and have their tops level. Near these on the north or north-east should be the bathing-place with hot water arrangements, as described under palaces further on. The fire-place of first and second class buildings should be like the head of a human being with a square chimney towering high into the sky; those of the third class buildings should have rectangular or oblong openings for the smoke outlets and those of others may be made

of any shape or size. Between the cook room and the central apartment should be situated the dining and the drinking rooms with suitable arrangements for the purpose on the right-hand side of the centre of the building.

त्रहणरचिमयूखप्रेक्षणं चान्नशालं व्यतिनत-
मपराह्न वारुणा दृश्य जालम् ॥

धन गृहमतितुंगं दुर्निरीक्ष्य त्रिशंको स्तितर-
मुरुतुंगं देवतागारमिष्टम् ॥

सर्वाः गृहस्य मार्गेणां तरिताः सद्य समुखाः ॥

पूर्वस्थाः पश्चिम द्वारा दक्षिणस्था उद्दमुखाः ॥

पश्चिमस्थाः पूर्वमुखा उद्दवस्था दक्षिणाननाः ॥

मयमतः ॥

The rays of the early sun should enter the cook-room and those of the setting sun should be visible through the ventilators, the treasure room should be high and closed on the south so that the rays of त्रिशंकु star should not be visible in it, and the place of worship should be on the north, in the highest room in the house. All these out-houses should face the main structure; i. e. those situated on the east, south, west or north should have their doors facing west, north, east and south respectively.

कृष्णशालां तरे कुर्यात्करी कृतमार्गकम् ॥

परितो मंडपं द्रव्यशमागेन ककरीपथम् ॥

गृह मंडपयोर्मध्ये त्रिचतुः पञ्च षट् करा: ॥

ककरीवृतमार्ग वा कतव्यास्ते शिळार्चिताः ॥

एकहस्तं द्विहस्तं वा क्षद्रमार्ग विशालता ॥

सर्वतः समविस्तारं प्रकुर्यादा वृतं पथम् ॥

शिल्पदीपकः ॥

Sandy paths should be constructed between the main building and out-houses. Round the मंडप also there should be sandy paths of half the dimen-

sions. Between the house and the मंडप the paths should be three to six hands wide and these may be sandy or paved. Small passages should be one or two hands wide only. A covered passage should be of the same width throughout and should lead to all the out-houses from the main building.

येनयत्कर्म निष्पाद्य तेन लिङ्यं तु तदगृहम् ॥

यानियस्य सचिन्हानि तानि तत्र निधापयेत् ॥

यज्ञोपवीतं यज्ञाभिं यज्ञभांडच राजतम् ॥

यज्ञोपवीतं मध्यस्थं यज्ञभां डच दक्षिणे ॥

मध्ये हेममय चक्रं शंखं वामे च राजतम् ॥

कार्मुकं ताप्रजं वामे दण्डो रुक्मश्च दक्षिणे ॥

गोपुंगवं च पुरतो वैश्यानां प्रविधीयते ॥

बीजं पात्रं हलं हैमं ताप्रजं युग मिष्यते ॥

हलं दक्षिणभागे तु वामांशे बीजं पात्रकम् ॥

बीजं हिरण्ययं शूद्रे लिंगं वैश्ये च संमतम् ॥

धन सज्जानिलिंगं तु सार्गलं कुचितं भवेत् ॥

पर्यंक दीप शशनं लिंगं निदात्सुखालये ॥

शिल्पदीपकः ॥

A building should be marked by the emblem of that by which the work to be done in that building is carried out. Everything has its own symbol and that should be marked on that room. For example on the room of a Brahmin the symbol should consist of ब्राह्मण यज्ञोपवीत in the centre, यज्ञभांड on the right and यज्ञाभिन on the left. The यज्ञोपवीत should be golden in colour, the यज्ञभांड should be of silver and यज्ञाभिन of copper ; on the room of a क्षत्रिय the symbol should consist of चक्र, शंख, कार्मुक and दण्ड placed as under ; golden चक्र in the centre, silver शंख on the left, and copper कार्मुक on the right ; instead of चक्र for ordinary men दण्ड

may be used. For वैश्य persons the symbol will consist of गोपुङ्गव, वीजपात्र and हल; of which golden हल should be in the centre, silver वीजपात्र on the right, and copper गोयुग on the left; for the शूद्र also the same symbols as those of a वैश्य are used but the हल is on the right and the वीजपात्र on the left and गोयुग in the centre and the वीजपात्र is of gold. On a treasure room the symbol will be lock and key or अर्गल drawbolt and कुञ्जित key or lock; on a pleasure or bed room the symbol will be a पर्यङ्क cot दीप lamp शयन bed and so on for all others.

शिविका गिलिका रथं ॥
स्थं दनं चैव मादीनियान मित्युच्यते वृथैः ॥
द्विचक बाहो विस्तारे पट् सप्ताष्टवित्स्तियुक् ॥
रथलक्षण०

Conveyances are of four sorts viz. शिविका, गिलिका, रथ and स्थंदन. शिविका is carried by men. गिलिका is drawn by bullocks, रथ is drawn by horses and स्थंदन is drawn by elephants. Each of these has two wheels on the outside and is six to eight वितस्ति in length with details as under.

अक्षस्या वधिदैर्यस्याद् दारुचे चतुरखकम् ॥
अथः पट्टैश्च कीलैश्च स्वशाखाभिर्द्वीकृतं ॥
अक्षांतेऽक्षोत्तरे बन्धे दारकीलैः प्रयुज्यते ॥
अथो पाश्वं तले वा तु गलिका पट्टिकांतरे ॥
पृष्ठे पंचांगुलोत्तेष्वं मुखपट्टिकया वृतम् ॥
भारो भारोपधानं च अक्षमक्षोत्तरं तथा ॥
कुबरः कुबरस्याप्ये द्वयपट्टैश्च कीलकैः ॥
रथलक्षण०

The breadth of these conveyances will be suitable to the length of the अक्ष axle. This, if of metal, will be round, and if of wood, square. All the parts of the conveyances will have iron straps and bolts except the ends and the top of the अक्ष axle, for joining which wooden pegs are to be used. The conveyances should have covers, poles, yokes and spokes to be fixed or removed by putting in or removing two bolts with nuts and washers.

A detailed description of these will come under रथशास्त्र Road-making further on.

मन्त्र मन्त्री लिका काष्टं पंजरं फल कासनम् ॥
पर्यंक बालपर्यंकं शयनं चैव मादिकं ॥
शाकार्गदश्चतिमिसः पनसो निवार्जुनौ मधूकश्च ॥
याने शयने चैते प्रोक्ता वृक्षाः पुराणैस्तु ॥
आसं त्रिवितस्तिः स्वादाया मंचाष्टभिर्वितस्तीमिः ॥
समन्वतुरस्त्रं पीठं ह्यासनमिति सायतं प्रोक्तम् ॥
उत्कृष्ट मध्यमा धममासन मृजुपदं शयनवत्कार्यम् ॥
पूर्वशिरः पर्यंक दक्षिणमुखं शयनमपि सदा कार्यम् ॥
व्याघ्रमृगपदशयनं द्विजनृपयोः शेषयोस्तुभृशशेषम् ॥
फलका पर्यंको वा पट्टिचित्रापि वालिका कार्या ॥
शयन विशालव्यासा तुंगा वै पाद पट्टिको पेता ॥
न्यग्रोधोदुवर वट पिप्पल विस्वामिलं च सारमयम् ॥
ते सर्वेयोम्याः स्युः पीठे स्मित् सर्वसिद्धि करणीयाः ॥
मयमत०

Furniture consists of nine sorts of things viz. मञ्च Sofa, मञ्चीलिका Stool, काष्ट Board, पञ्जर Cage, फलक Bench, आसन or पीठ Seat, पर्यङ्क Cot, बालपर्यङ्क Cradle, and शयन Bedstead. These may be made of शाक, अर्गल, तिमिस, पनस, निवार्जुन or मधूक. Conveyances also may

be made of the wood of these trees. शयन is generally three वितस्ति wide and eight वितस्ति long. A thing which is square or a little longer is called पीठ or आसन. All sorts of पीठ or आसन should be constructed like the शयन with straight feet. A bedstead should be laid with the head towards the east or south. A first or second class bedstead should have feet like those of the tiger or lion or deer, and other sorts of bedsteads may have any other sorts of feet.

फलका and other planked seats should be made of the same breadth as a bedstead but these will not have feet of battens as high as शयन. The planks may have any sorts of carvings or decorations. The feet of काष्ठ and फलक will be battens fixed lengthwise. For these pieces of furniture न्यग्रोध, उदुवर, बट, पिप्पल, and विलङ्ग may be used. The wood of these trees is fit for such things and has a natural polish and varnish consisting of their juice.

सिहेभ युक्तमेवं तत्तज्जाम्नाभिधानं स्यात् ॥
नाना चित्रविचित्रं शुसदं राजां च पश्च वन्धयुतम् ॥
मयमत् ॥

A seat with the heads of lions or elephants decorating it, is called सिहासन throne. This should be very high शुसद, beautifully carved and decorated with many ornaments.

Detailed descriptions of these will come under नगररचना, town-planning in राजवरालय courts section.

CHAPTER XIV OPENING CEREMONY.

पूर्वं स्थापति रिष्टव्यः शिलपशास्त्रविशारदः ॥
स्थापकोऽपि वृत् कर्त्रा वास्तुकर्म समारभे ॥
ताम्या मुभाम्यां प्रारब्धं विमानं वान्यदेव वा ॥
निष्पादयासमाप्तेः स्यात् म्यामेवहि नेतरैः ॥
शिलपदीपक०
येन यत्कर्म चारब्य मादौ तद्वसानके ॥
तेनैव निष्ठितं कर्मश्रोसौभाग्यायुरेधनम् ॥
तस्याभावे तु तत्पुत्रः शिष्यो वा तं गुह्यं पटे ॥
लिखित्वा तत्त्वियोगेन सर्वं कर्म समाचरेत् ॥
मयमत् ॥

When a man wants to build anything, he should first select an Engineer who in his turn should also select his Assistant, or the owner of the building may select the Assistant. These two should supervise the building from beginning to end; no other person should ever be entrusted with it. Any thing is propitious if it is in charge of one person from the beginning to the end. The person who begins anything should be responsible for it up to the end. In the absence of the Engineer or his Assistant his son or disciple should draw his picture on a cloth and then should carry on the work in its presence. In short the building should be carried on and completed according to one system only.

सिचितासिचितं चैत्रोपसिचित मिति त्रिधा ॥
खीपुंनपुंसकं चैत्रत्रिविधं एह मुच्यते ॥
इष्टिकाभिः शिलाभिर्वासिचितं यद्धनीकृतम् ॥
कपोतादि शिरोयुक्तं यत्तपुंस्त्वं समीरितम् ॥
ऐष्टिकं दारुजं सौधं भोगयुक्तागसंयुतं ॥
खीत्वं ह्यसिचितं भोगाभोगयुक्तं द्रुमेष्टकैः ॥
घनाघनांगयुक्तवं द्रुपसिचित मुच्यते ॥ मयमत् ॥

नित्यं यथा जगति वित्तमनेक वस्तु—
न्यचंद्रतार मधिवास भुवं सुदात्यात् ॥
शिल्पदीपक०

A building is called **सिञ्चित**, **असिञ्चित** and **उपसिञ्चित** or पुः Male, स्त्री female, or नपुंसक neuter according to the length of its duration. A building that is built of good stone or bricks, is very compact and has good roof with gables etc., is called **सिञ्चित** or पुः. A building that is constructed of bricks or slabs with wood or lime and has overlaps and joints is called **असिञ्चित** or स्त्री. A building consisting of wood and slabs, but is solid in some parts and not solid in others is called **उपसिञ्चित** or नपुंसक. The best structure however is one that is as everlasting as the moon, stars or earth, being made of one solid stone throughout and is weaker, as the number of joints and the use in it of perishable materials increases.

हीनं पोडश हस्तेभ्यो गृहमानं न कारयेत् ॥
शालासुभिन्नशालासु संधिकर्मनं कारयेत् ॥
गृह क्रिया हि द्विविधा भिन्नाभिन्न प्रकारतः ॥
असंधिकं भिन्नगृहं हमिन्नं तु ससंधिकम् ॥
नोचानां नीचमानं स्थानं श्रेष्ठानां श्रेष्ठ मिष्यते ॥
श्रेष्ठमानं निष्टष्टानां कदापि न प्रयुज्यते ॥ मयमत०

A building should not be less than sixteen hands in area (four hands square). Buildings of different materials or structures of different durability should not be bonded or joined together. Structures are divisible into two classes viz. भिन्न carved and अभिन्न built. A structure having no joints is called भिन्न

carved or monolithic, and that having joints is called अभिन्न built or jointed. When there are different ways or methods or proportions or dimensions specified for the same thing the lower or weaker methods should be followed in low class structures and the higher and stronger ones for the higher class structures; as it is no use using higher methods or dimensions for low class structures. The life of a structure is that of its weakest part.

- (a) शीर्षेगुर्वौलेपहीनाधिका वा संधिश्वेणी पादहीना न भित्तिः ॥
- (b) स्वयमपि च कपाटोद्वाटनं वापि धानं भयदमधिकहीनं शाखयोर्वाविचालम् ॥
- (c) पुरुषयुवतिनाशं स्तंभशाषा विहीनं मयद-मखिल काष्ठाग्रं यदाधः स्थितं स्यात् ॥
- (d) काष्ठं पञ्चकं चाव नीतलगतं मूलं न पूर्वोत्तरं ॥
- (e) शूर्पकारं प्रकोष्ठं वा विकर्णं च न कारयेत् ॥
- (f) छाया दिवा मध्यगता न कृपे ॥
- (g) संवर्धनं च वास्तुनां तथा संवरणानि च ॥
- प्रावर्तनं च द्वाराणां प्रमाणे क्रियते दुधैः ॥
- मानहीनं न कर्तव्यं कर्तव्यं मानवधनं ॥

शिल्पदीपक०

Fines should be inflicted for the following defects.

- (a) Walls—If these be heavy at the top, out of plumb, have no proper bonding, proper layers, or proper offsets.
- (b) Doors etc—If these close or open of their own accord, be defective in ledges, be shaky, be short of bolts, nuts etc., or if the wood is used topsy turvy or upside down, i. e. with its end towards the earth.
- (c) Woodwork—Posts, beams, rafters, purlins and battens or planks

should be used with the bottom of the tree towards the earth or to the south or west but not to the north or to the east.

(d) Roof—The roof should be in one plain like a tightly stretched cloth. It should not be up and down.

(e) Shape—The shape of the structure should be even. It should not be broader or longer in any place than in any other like a शूर्प etc.

(f) The well should not be covered by the shadow of the structure at noon or midday.

(g) In making Additions and Alterations the intentions of the original designer should be taken into consideration. The altered structure should be stronger and not weaker or out of proportion and symmetry.

अथनिष्पत्तगृहं प्रविश्यतर्वरितं न प्रविशेदनिष्ठितम्
यदि निष्पत्तमवेशितं चिरं सुरभूतादिगणाश्ररंत्यल
तुलसिसर्जरसार्जुनमंजरीधनवचाकपटोलसगुगुलः
त्रपुष्टिहिगुमहीषधिसर्षणा कुरबकोत्रसदैवहि धृपराट
पूर्वेद्युर्वासयित्वा द्विजपशुवृषभांस्तर्पयित्वाजलाधैः
स्वाध्यायैहोर्यशांतिद्विजवरमुदितैस्तद्दहंस्वस्तिवाच्यैः
पूतं कलैहर्दिद्विग्रहसूषपकुष्टादिकानां वचानां ॥
कुडये संलेपितं तैः सहभुवि सलिलैश्चंदनस्यानुसिकं

मयमत०

When a structure is completed it should not at once be entered into, nor should it remain unentered for a long period; in the former case it is infected by diseases and in the latter by insects. A completed building should be disinfected by the smoke of तुलसी, सर्जरस-अर्जुनमंजरी, धनवचाक, पटोल, गुगुल, त्रपुष्टि, महीषधि सर्षण and कुरबक duly mixed to form a disinfecting mixture. Then it should be washed with the

decoction of हरिद्रा अगर, सूषप, कुष्ट and वचा. On the day before the opening, cattle and cows should be tied in the verandah of the house, the Brahmins should recite verses from the Vedas pertaining to peace and prosperity and should give offerings at the altar; the walls and floors should be sprinkled or washed with water mixed with sandal-wood and adorned with figures composed of many-coloured powders.

ग्रामाग्रहार पुरपत्तनकादिकानाम् ॥
देयोचलिगृहं हगतेषु विदिक्षु दिक्षु ॥
सद्वौचतुष्क सहिते सुरमदिरे च ॥
थ्रेष्ठे कनिष्ठ निलये उखिलदेवताभ्यः ॥ मयमत०

Then offerings should be given to all the deities of the province, town, village post, square, temple or, i. e. all deities whether small or large should be propitiated.

यजमानो विशुद्धात्मा प्रणम्य शिरसा गुरुम् ॥
वस्त्राणि धन धान्यैश्च पशुनपि सवत्सकान् ॥
मुदास्थपतयेद्वाशेषान् भक्त्यातु तर्पयेत् ॥
शेषानपि च तक्षादिविष्टि सर्वान् सुकर्मणि ॥
संतर्पयेद्विहरण्यैश्च वस्त्रैर्वापि मनोहरैः ॥
विमानस्थूपिकास्तंभ द्वारालंकरणानि च ॥
वस्त्रादीनि ध्वजं धेनुं प्रीत्यास्थपतयेददेत् ॥
प्रासादाभिमुखे स्थित्वा यजमानः प्रसन्नधीः ॥
स्थपतेः कर्म सर्वस्त्रं क्लेशेन सह यद्धवेत् ॥
तत्सर्वं परिगृहीत सुप्रीत्या स्थापकाङ्गया ॥
मयमत०

The owner of the building should salute his religious preceptor with all his heart and should distribute clothes, beasts, corn, gold etc. among the Engineering staff and he should give the plan etc. of the building to the Engineer. The owner should stand opposite, or in front of, the building and should take charge of it with all the

balance and क्लेश liabilities from the Assistant in charge of the work. The plan etc. serves as a certificate of good work.

अति संतुष्टमना गृहेश्वरो युतयोषितस्वजन
प्रियानुगः ॥

स्वगृहं प्रविशेत् प्रविश्यवैवं शुभवाभिः परि-
पूर्णतर्णकः स्यात् ॥

प्रीत्या प्रविश्य गृहं वस्तुनिरोक्ष्य सर्वतौदं
पती च शशनेष्युपविश्यपश्चात् ॥

सव्यंजनोदनमयो गृहिणी गृहीत्वा निर्वत-
येद्गृहं वलिबलिशेषमन्नम् ॥

निरुजा मुदिताः सधनाः प्रतिका यश सा
महताद्वृतवीर्ययुताः ॥

सततं निरुग्रद्वरुमयुताः पृथिवोपतिर्जीवतु
कर्मविधौ ॥ मयमत ॥

उक्तवैत्र मेषमखिलानि च साधनानि स्थि-
त्वा प्रणस्य शिरसास्य रतिः करास्यां ॥

आदाय तानि सकलानि तदीय वाहौ गच्छे-
त्वकीयभवनं स्वजनैः सभृत्यैः ॥

The owner with great pleasure followed by his wife, relations and darlings should enter the house and should praise every thing in it. He with his wife should carefully inspect everything in the building and should sit on a sofa; after this the mistress of the house should remove the oblations and the receptacles containing food which remains after giving the oblations. The Engineer then should give a benediction to the owner as under—

in t “ May you live in this house healthy,
as a pleased, wealthy, adorned with glory,
all with wonderful powers, and may no obstacles hinder your activities on earth.”

the After saying so he should go to his residence with his relations and servants and should take away with him all his tools and whatever is presented to him by the owner.

Thus in those old times it seems that the works were done on the contract system. The Engineer himself or his Assistant was the contractor and they lived on the work, used their own tools and labour, and went home after the building with all its liabilities and remaining stores had been taken over by the owner. The owner is asked to inflict fines for all bad work first and then to praise all good work at the time of the dismissal and departure of the contractor and his labourers so that they may go pleased.

In conclusion it may be pointed out that this world is made of duels द्वय which are complementary to each other. These fulfill the wants of each other and tend to the welfare of the whole. अस्त्रोत inorganic and सस्त्रोत organic substances, हारिद्रद्व व Plants and रक्तद्व animals, पुरुष male and स्त्री female, carnivorous मांसाशन and herbaeous animals धान्याशन, वणिज industrial and कृषि agricultural occupations, न्याय, justice and दया mercy ज्ञेय object and ज्ञाता subject are such duels. The former of these are called असुर wicked and the latter सुर kind by ancient Indian authors. Even the methods of counting, of measuring space or time are different for these सुर and असुर civilizations. सुर people count from small numbers towards the large as

चतुर्विंशति, measure space by hand, count on the parts of fingers **प्रारम्भानामि-कामूलं जपेद्वशसुपर्वसु** ; and measure time from sunrise to sunrise. **असुर** people on the other hand count from large numbers to small ones as twenty-four, measure lengths or space by means of feet, and count with whole fingers and hands and measure time from sunset to sunset. Some **सुर** measure time from midday to midday and are called **माध्यंदिन** while some **असुर** count time from midnight to midnight. There are countries and times in which the one or the other of these two predominates and the civilizations predominant in those places and times are called **सुरसंपत्ति** or **असुरसंपत्ति** according to the prominent features of the same. Ancient Indian authors prefer the **सुरसंपत्ति** to the **असुर** one for the following reasons.

(1) **सुरसंपत्ति** is ever reproduced or propagated and is thus everlasting and inexhaustible, while **असुरसंपत्ति**, however large and extensive it may be, is sure to be exhausted some day, near or remote. When the resources are thus exhausted the civilization is likely to suffer a sudden collapse.

(2) **सुरसंपत्ति** can be improved by suitable training and careful selection of pairs. Nature assists human efforts in this direction, while **असुरसंपत्ति** cannot be so reproduced or improved by human efforts and nature is always inert or works against human efforts in this direction.

Ancient Indian civilization is thus mainly a **सुर** civilization and hence we find that in all the branches of human requirements, whether medical engineering or house-furnishing, Indian authors specify vegetable and animal products more frequently than mineral ones. India, as it extends from the top of the Himalayas to the seashore at Rameshwar, is also more suited, by its climatic and physical constitution, for the use of animal and vegetable substances.

Here **वास्तुशास्त्र** or the science of house-building ends. From the next chapter **प्राकारशास्त्र** the science of constructing defensive works begins and that will be followed by **नगररचनाशास्त्र** or town-planning. All the ten sciences mentioned in Chapter 1 will thus be dealt with one after another and the extent of the whole Indian Engineering Philosophy will be covered in due course.

Kenopanishad by Pt. Satvalekar—A Review.

(*By Criticus.*)

In the *Vedic Magazine* for October 1922 appeared my criticism of the exposition of Kenopanishad by Pt. Satvalekar. The Pandit has, in the last issue of the *Vedic Dharma*, his Arya Bhasha monthly, published a refutation of it. Not expressly referring to my criticism, he has quoted a few words and phrases from it, which clearly indicate what forms the target of the Pandit's remarks. I know that as a general rule, the criticism that appears in the columns of a literary review, is treated by that review as final, and unless some very serious blunder in it, calculated to mar the literary value of the book criticised, is suggested, no controversy is allowed on the basis of that criticism. Yet as the Pandit, as a commentator of the Arya scriptures, occupies a unique position in the Arya Samaj, and his writings have a far-reaching influence on the religious thought of the community I crave, Mr. Editor, the courtesy of a few columns to answer his refutation.

According to my lights, I think I did full justice to so many praiseworthy features of the book. I had, however, the audacity, too, to differ from the expositor in his characterisation of Uma. The latter is a lady character in the story of the Upanishad and has, as all commentators are agreed, some allegoric meaning. Almost all expositors that have preceded Pandit Satvalekar, except those that stick to the literal significance of the Puranic tales, regard Uma as standing for *Vidya*

or *Buddhi*, the pure intuitional faculty of man, which when advanced and developed, places him in communion with Brahman. To Pandit Satvalekar, however, Uma appears as representing *kundalini*, 'a tortuous vien at the bottom of the human spinal chord', as I put it in my criticism, and a subtle '*maya-shakti*', 'a very fine form of Prakriti,' as Pandit Satvalekar defines it in his refutation.

The objection I made to the Pandit's interpretation was not that he makes this exposition of the allegory himself, but that he fathers the same exposition on Shri Shankar-Acharya too. To reproduce the relevant passage from my criticism :—

'The Pandit has been at great pains to find new meanings in the old shlokas. If for these meanings he had taken the responsibility on himself, we had no quarrel with him.'

The argument of the Pandit where, by he finds his own meaning in the Bhashya of Shankar, and my criticism of that argument, are stated as follows in my review in the *Magazine* :—

'Shankaracharya has given two alternate meanings of हैमवती उमा. One is the ordinary rendering viz., the intuitional faculty of golden character. The other is हिमवतो दुहिता. Pandit Shri Dhar Shastri refuses to accept the latter rendering as Shankara's, which fact excites the ridicule of our present

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expositor. In his opinion हिमवान् stands for the spinal chord, and दुहिता meaning daughter is the same *kunadlini* standing at its bottom. As if Shankar in his attempt to simplify the meaning of the Upanishad had blundered in his exposition into still harder conundrums. The ground on which our author bases his fanciful interpretation is that मेरुदण्ड happens to be a Sanskrit term meaning the spinal chord, while सुमेरु is also a name of the Himalayas. This I now doubt. The grey or whitish nervous matter, found in the same chord, is compared by our poetic commentator to the perpetual snow that covers the top of the highest of mountains. More ingenuity seems to have been exercised to make plausible a rendering of Shankaracharya, of which another writer doubts the authenticity, than Shankaracharya himself could have claimed for his own exposition, if it is his."

For the benefit of the reader I reproduce below the actual words of Shankar wherein that illustrious interpreter of Prasthanam Traya suggests an alternative explanation of the passage from Ken :—

अथवा उमा एव हिमवतो दुहिता हैमवती
नित्यमेव सर्वज्ञेन ईश्वरेण सह वर्तते । इति ज्ञातुं
समर्था इति कृत्वा तामुपजगाम ।

Simply put, the questions to be answered by the Pandit are—

1. Where in Sanskrit literature is the spine called *Himavan* ?

2. Where is *Kundalini* spoken of as the daughter of the spinal chord ?

3. Was Shankar going, in his interpretation, to write a further allegory, inasmuch as he represents what our Pandit thinks is *kundalini*, a form of matter, as capable of realising Brahma ज्ञातुं समर्था, for *Jnan* should belong to some sentient being ?

4. Was it the intention of Shankar to cloud his interpretation in further mystery, a mystery more profound than that which enshrouds the meaning of the Upanishad ?

Shankar, an erudite scholar of Sanskrit, could not have used a terminology which the Sanskrit language nowhere recognises. To me the method of Shankar appears to have been the same that Yaska employs in his interpretation of the verses of the Veda. The latter gives more than one alternative explanation of Vedic passages, one of which is usually that recognised by the *Aitihasik* School of interpreters. By the very task that Yask has set to himself, namely the writing of a *Nirukta*, he could not favour the interpretation of the *Aitihasik* School. For the information of his reader, however, he does give that interpretation. So too perhaps did Shankar. Thus may be dismissed Shridhar Shastri's misgiving, or at best suggestion, that the second meaning assigned to the verse of the Upanishad by Shankar is an interpolation. Ours, however, is a guess, to which we attach no critical value.

For the ingenuity of Pt. Satvaledkar we have every praise. The meaning he has found in the Upanishadic story is original, and if it had stood in his own name, it should have reflected

great credit on the sparkling flights of his exquisite fancy. Let him only disown his authorities. For neither Shankar, nor, too, the author of the Hatha Yoga Pradipika, seems to bear him out. His likening of the greyish brain-matter to the perpetual snows of the Himalayas is entirely his own. His practice of Yoga may have helped him in forming these comparisons, which we, by the way, relish. But Yoga is not literature and in the latter field, we are sorry, he is at sea in his search for corroborative authorities. Neither the snakes of Shiv nor the filthy habitation of Ganesh help him in establishing the esoteric meaning, he has formd, of Uma.

In his refutation which he has lately published, he distorts the word Uma (उ, म, आ) and connects it, on what authority we do not know, with Aum (अ, उ, म.). This, if he does not take it ill, is more fanciful than all his previous interpretations.

It is, however, not in the elucidation of this character alone that Pt. Satvalekar has struck out a new path. Agni, for him, stands for speech, Vayu for breath, and Indra for mind. And why? Simply because among the organs, mentioned in a previous chapter of the Upanishad, which the Rishi regards as incapable of comprehending Atma, these organs come first. The Pandit should be aware that there are other organs, too, similarly incapacitated from Brahma Jnana. What Devta in the story represents, for instance, the Eye चक्षु? Agni would be best fitted for the task, Agni, however,

has been identified by our Pandit with speech. And what is the समष्टिरूप universal counterpart of the Ear शोक्? The property of Agni, again, or more properly its power, of which it boasts in the Upanishad, is that of burning. Does speech burn?

Manas or mind, as far as we have read Arsha literature, is enumerated among the organs. It is nowhere treated of as the *Indriyapati*, the Lord or master of organs. This last explanation of the word Indra is given by Durga Charya in his commentary on Yask who, too, denominates, by this term, Atma, the unquestioned master of the *Indriyas*. I wait to be enlightened on this point by the learned Pandit.

These, Mr. Editor, are some of the objections, or if you will, queries, ज्ञानः that suggest themselves to the reader of Pandit Satvalekar's Kenopanishad. One may multiply them, but for the purpose of a cursory criticism, which is in no way meant to be comprehensive, these will suffice.

Let me, in conclusion, make it clear, that in my reverence for the learned Pandit, who has consecrated his all on the altar of *Veda-bhashya*, I yield to none among his admirers. If I criticise his works, it is with a view to help his own mission, viz., the research for, and the dissemination of, truth. Like every true scholar he should recognise that it is through criticism that truth is sifted and literature made a medium for the conveyance of right knowledge. In his refutation published in the *Vedic Dharma* I see signs of vexation. An unbiassed votary of knowledge

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that he is, he should at once eschew this weakness of mind. If he succeeds in answering my objections, none will be more glad than I. In case, however,

he feels the force of my criticism and finds some grain of truth in it, let him pick up that grain and modify his exposition in accordance with it.

ATMA.

(BY M. S.)

Turning over the leaves of your *Vedic Magazine*, my attention was arrested by the heading "The Function of the Atma" on page 546, where you have reviewed contemporary thought. The very next line mentioning the source of this oracle should have saved me from wasting my time over its contents, but the hope that the last twenty years may have instilled some inkling of the wisdom of the Indian Rishis into Theosophical heads lured me on in my profitless task of perusing the contents further, and to my own cost I discovered that the concept of the Theosophical Atma stands where it did twenty years ago when I began to sicken of the nonsense which finds currency under the imposing title of "Theosophia" or Divine wisdom. My self-disgust was completed when I found a hackneyed quotation from Dr. Annie Besant's book "Thought-Power". This and still more profuse works of Dr. Besant written in the days when she had not yet evolved the profundities of her recent title, such as "Consciousness" which had promised so much to the student of philosophy without fulfilling anything, are the stock-in-trade of the lesser Theosophists for spinning out the

endless yarn of articles for their magazines. But in those olden days many of us who expected much from the Theosophical wisdom had not attained to that supreme disgust for such literature which kept up a haze of illusion over its vagaries through its very indefiniteness, a haze which a certain type or condition of mind seems incapable of ever dispelling through its own intellectual impotence or some strange hypnotic suggestion of its own or of others. But the final blow was yet to come and it came happily for those who had been trying to study philosophy and especially Indian philosophy with which theosophy dabbles or rather toys. This blow was the lectures on the Introduction to Yoga, which Dr. Annie Besant delivered at one of the Adyar conventions. Happily the writer of these lines was not present on this august occasion. But he had the satisfaction of reading them after their publication soon after. Out of an audience of five or six thousand (the usual number said to be present on such functions) how many did not gape in wonder or go into extacies over the mystic knowledge which must have poured in her admirable flow of oratory, it would be difficult to com-

pute exactly; but one may dare to say, that the number could not be more than half a dozen. And this half a dozen must have consisted of the few in this great society who had happened to have read the Yoga philosophy of Patanjali with some care. Which of these felt a wonder and awe at the marvellous audacity of the venerable lady in pouring, through the torrent of her eloquence, ideas which never occurred to Patanjali or which were in utter contradiction of his philosophy, and which felt a wave of unutterable disgust sweeping through their minds at such a performance is difficult to guess, but their faculties must have been well nigh paralysed by the psychic shock thus administered, and had it been customary for objections to be invited and criticism, which has been out of the question in the face of such an oracle, it is doubtful if this shock would have left them the power of making any criticism. One thing is sure, that the remaining four or five thousand nine hundred ninety five must have actually or nearly shed tears of adoration at the marvellous wisdom uttered, reminding one of a very old caricature of a Theosophical audience which appeared in the pages of that incomparable humourist the *London Punch* where in an audience listening to Esoteric Buddhism as Theosophy was parading about in its early years was represented with ears too long and pointed to resemble those human. In fact it was an audience consisting entirely of donkeys. For the benefit of those who are too serious-minded to appreciate this Punch-humour, it would be necessary to point out one or two things which will strike any

one, who has paid even a passing attention to Patanjali's Yoga system. There are numerous gems in these lectures which would reveal the psychology of Theosophic discipleship which is supposed to convey the wisdom of the Rishis and Mahatmas living beyond the Himalayas and elsewhere to the still humbler Chela and aspirant, but there is one crest-jewel (shiromani) which has clung to my mind and which the operation of years in which I have been trying to unburden my mind of Theosophical "Truths" has not succeeded in wearing out. And it was this *That there are states of Consciousness in Asamprajnata Samadhi.* Anybody who has occupied himself with Patanjali must know that there are two great divisions of Samadhi in Patanjali's Yoga system, and these divisions have not been challenged or superseded by the writings of any other Indian thinker. One is Samprajnata Samadhi, and the other Asamprajnata Samadhi. To the first belong the states and operations of mind—Chitta Vrittis or Buddhi Vrittis or Pratyayas or notions of the understanding, as the term implies, in which the objects of knowledge whether in the shape of gross external objects or subtle objects, or sense organs or the mind or understanding itself, or even the Atman or Purush which is pure consciousness or sentience or awareness, and which is the true substratum of the subject and hence called the subject also, become perfectly illuminated and completely known being reflected in the *buddhi* or understanding to become. As it is she has to content herself inspite of her ambition to the contrary in becoming the Guru of such Indians only as are really

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ignorant of the fundamentals of their own religious philosophy. And so the venerable lady has to find a consolation in politics which partially at least fulfils her ambition. But some of her old admirers still wonder if she has found in politics what she has most probably missed in Theosophy. The highest reach of this Samadhi is the knowledge of the discrimination between Purusha or Atma and Budhi or understanding, or satva and Purusha as they also call them technically. And there is said to be no higher and further knowledge than this at all. When this Samadhi becomes perfected, then the mind and understanding begin to cease their function for they have fulfilled the dual object of the Atman that is bhoga and apavarga, (that is experience and emancipation) which comes through this knowledge. Therefore the mind is made by its own force to resolve itself into its nature, and only Sanskaras remain behind, which do not imply any state of knowledge, and the purusha which is pure knowledge, and consciousness or sentience or awareness, as a substance and not as a property of some substratum, remains isolated and established in its own essence or form called Swarupa. This state is like that of Moksha or emancipation, and while the Purush is thus established in its own form — Swarupa

pratishtha—the mind remains in the later condition of Sanskaras and impressions or to be more accurate the latent germs of its being. That is why this is called Asamprajnata Smadhi, in which nothing remains as an object of knowledge or consciousness. This idea of Yoga as also of Vedanta and Sankhya—it is common to these three systems at least—was never grasped by Dr. Annie Besant, otherwise her book on Consciousness which deals with the subject somewhat in the sense of empirical psychology of the west, would have been rejected by even herself as a more or less materialistic work which it, to a great extent, really is. Had her otherwise brilliant mind grasped this Indian idea which has yet to revolutionise the western mode of thought, she could have become a real teacher of Indian wisdom which was not her lot.

Those who are supposed to be themselves Yogis or disciples of Great Yogis, as Dr. Besant is said to be, should have no difficulty in explaining the mysteries of Yoga. But if they betray an ignorance of even the fundamental and elementary truths of Yoga which are clearly stated in the current books, it can point to one conclusion that they are either deluded themselves or are deluding others.

SOME THOUGHTS ON THE SHUDDHI MOVEMENT.

(From the religious point of view.)

(BY PT. DHARMA DEVA SIDDHANTALANKAR.)

By the grace of God a new awakening has taken place in the Aryan (Hindu) community. To-day the whole community has shaken off its lethargy and has begun to realise the necessity of organising itself. Whatever may be said against the Shuddhi movement it has been set on foot with great vigour and zeal. There cannot be the least shadow of a doubt that it is quite in accordance with the injunctions of our Holy Scriptures. The most remarkable injunction of the Vedas that should always be borne in mind by every follower of the Vedic Dharma is to aim at aryanising the whole world. Here is the verse from the Rigveda with its English rendering.

इन्द्रं वर्धन्तो अप्तुरः कृगवन्तो विश्वमार्यम् ।

अपश्वन्तो अराधणः ॥ ऋ० ६ । ५३ । ५

Ever expanding your soul force, putting to flight all the evil qualities turning the whole world into Aryas lead an active life. This I believe is the correct interpretation, for that word इन्द्र is certainly used for soul and the word अप्तुरः means active. It is thus clear that a very great responsibility lies on the shoulders of every adherent of the universal Vedic Dharma. He must not be contented with leading a pure noble life. He is duty-bound to increase the moral as well as the numerical strength of the Aryas or noble men. It is after so many centuries that the followers of the

Vedic Dharma are to-day awakened to a consciousness of their duty in the matter. In the Puranic age to cross the ocean even for the sake of propagating our noble religion was regarded as a sin. Was that the case in ancient days? Is it not stated in the Bhawishya Purana that Kashyap and Kanva, two well known sages of their age, went to Egypt and after performing due purification ceremony took into the fold of the Universal Vedic Dharma several thousands of the Mlechhas? Is it not a fact that some of the Mlechhas of Egypt, thus reclaimed by our sages, were given the status of Brahmans and were taught the Vedas? If there is any one among my readers who doubts the truth of the statement let him give a little thought to the following verses which we come across in the Bhawishya Purana—

मिथ्रदेशोऽभवा म्लेच्छाः काश्यपेनैव शासिताः ।

संस्कृताः शूद्र वर्णेन, ब्रह्मवर्णं मुपागताः ॥

शिखासूत्रं समाधाय, पठित्वा वेदमुक्तम् ।

यज्ञैश्च पूजयामासु देवं देवं शचीपतिम् ॥

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These verses quoted from the Bhawishya Purana may thus be translated into simple English:—

The Mlechhas born in Egypt and taught by Kashyapa were raised to the status of Brahmana from Shudra class after the purification ceremony was over (संस्कृताः) They began to have

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sacred hair (Sikha) and also sacred thread. They studied the Vedas and began to perform the Vedic sacrifices. This historical event recorded in the Bhawishya Purana may speak for itself. No comments are needed. It may clearly show what sort of religious zeal were our ancestors endowed with. Similar cases of reclamation or Shuddhi, as it is generally known, are recorded in the same Purana about Kanya and many other sages. These records are enough to throw some light on the antiquity of the Shuddhi movement. A very remarkable verse in this connection is quoted from the Skanda Purana which runs as follows :—

विशुद्धि याचमानस्य, यदि यच्छन्ति नो द्विजाः ।
कामाद् वा यदि वा क्रोधात्प्रद्वेषात्प्रच्युतेर्भयात् ॥
ग्रहस्त्वयोद्भवं पापं, सर्वेषां तत्र जायते ॥

It means :—If the Brahmins refuse to purify a man who is willing to be reclaimed, then the sin of murdering a true Brahman overtakes all of them whether the refusal is caused by lust, anger, malice or the fear of excommunication on their part. One thousand and one authorities may be quoted giving tone to the Shuddhi movement, but I need not lengthen the article by so doing. One thing more should always be taken into account. Though the Veda enjoins upon us to put forth our united efforts in order to aryanise the whole world, it also asks us in equally unmistakable

terms to look on all men with friendly eyes irrespective of their caste, creed and colour.

मित्रस्याहं चक्षुषा सर्वाणि भूतानि समीक्षेः
मित्रस्य चक्षुषा समीक्षामहे

That is what the Veda says.

It is clear therefore that to hate those who belong to other religions or who do not see eye to eye with us on religious and social matters is quite opposed to the teachings of the Vedas. What the Veda means to say is that we should regard all persons as our friends and then should endeavour to make them Aryas i. e. to enoble them because by so doing alone we can discharge our duty towards our fellow-beings as friends. The Shuddhi movement carried on in this religious spirit is certainly in perfect harmony with the Vedic teachings, but if it is the outcome of hate and revenge, it cannot command the genuine support of truth-loving, religious-minded people. We must guard ourselves against the mere thought of increasing our numerical strength or of carrying on the movement with political considerations. We must carry on the movement not because we hate any religion or community but because we love our religion and honestly believe that every thing necessary for the harmonious development of mankind is found in our Holy Scriptures.

THE WAY TO VICTORY.

(BY VEDA VYAS.)

In Sukta 50 of the 7th Kanda of the Atharva Veda there occurs the following verse :—

कृतं मे दक्षिणे हस्ते जयो मे सव्य आहितः ।
 गोजिदभूयासमश्वजिद् धनंजयो द्विरग्यजित् ॥
 अथर्वा० ७।५०।८

To us the meaning of this verse appears to be :—

Let action be in my right hand, then victory will be in my left. May I be the winner of cows, winner of horses, winner of wealth and winner of gold.

Shri Sayanacharya has understood the words कृत and जय to mean two different casts of dice, two tricks of the game of gambling. That Sanskrit Dictionary supports this interpretation as well, is no doubt true. In the whole Sukta, there is mention of dice and gambling. To Whitney too, however, who bases his translation mostly on the commentary of Sayana, this interpretation does not appeal as apt. The former cannot have lost sight of the relevancy of the meaning, as far as the mention of dice and gambling in the whole body of the Sukta, is concerned. Whitney's translation of the verse is the following :—

My winnings in my right hand, victory in my left is placed ; kine-winner may I be, horse-winner, riches-winning, gold-winner.

Whitney had before him the commentary of Sayana and yet he differs

from him in his rendering of the verse. Why so, he does not state in his notes. A probable explanation seems to be that the casts of dice, or two tricks of the game, can not by any straining of the idiom be placed, one in one hand and another in the other. In another place, too, in the same hymn, Whitney has rendered *krt* as winnings. Does this rendering improve the sense of the verse ? With winnings in one hand, and victory in the other, the verse remains as destitute of sense and as far removed from Sanskrit idiom as in its rendering by Sayana. To us the purport of the whole hymn seems to be a subtle denunciation of gambling, which term in its wider connotation stands for all sorts of undertakings and transactions, wherein success is determined by chance. A comparison is instituted between such transactions and those requiring labour of hands. The latter are declared as far superior to the former. There is in some verses a play on the word *Aksh* अक्ष which means both dice and organs of sense and action. In the hymn we are discussing, the latter meaning seems apparently to be implied. कृत means action. अतिदीवा the most skilled player, one who has attained extraordinary excellence in playing tricks of the game is said to win प्रहा i. e., destruction. The name of the gambler is शब्दी which according to Nirukta means one who ruins one's self. Diplomacy or political

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science, too, is in a verse, where supremacy is sought amongst kings, hinted at as a sort of gambling, Idiom supports this shade of meaning also. Keeping these suggestions in mind, one finds, while reading through the hymn, a very nice sort of subtle satire, directed against gambling, enlivening the whole piece. The hymn sparkles with exquisite sense as every piece of poetry should, while in the interpretations assigned to it either by Sayana or Whitley, the prayers appear to be simply versified non-sense.

In the name of the cow does Rajagopalachari appeal to the Arya community to seek unity with Mohammedans. The appeal coming at this particular moment, when the work of reclamation of hitherto non-recognised Hindus, whom Islam had claimed, of course against their will, as its followers, is a broad hint, though not expressly stated as such, to stop the Shuddhi campaign. The leader of the Congress majority pictures to himself a torrent of blood, which the fury of incensed Muslims will, on the occasion of the Id, draw out of kine, if for no other reason, to avenge at least the wrong that the Hindu is doing to the spread of Islam. Is the picture a picture of facts? On the score of cow-slaughter, the Sahib is the greater culprit. The fault of the Muslim is that he in his misguided eagerness to provoke Hindu, feeling, which he regards anti-Moslem, kills the cow in a manner that makes his action public. The able-bodied cow that is his property he feeds and loves. With the old animal, emaciated by age, his treatment is at a par with that of the Hindu. The Hindu silently disposes of the animal, getting for it a few

rupees, little bothering whither the doom that the bargain has signed, leads the dumb creature. In his heart of heart he is aware of the fate that awaits it, only he shoves off the idea. Will this pseudo-complaisance entitle him to greater merit as a humane being? Islam, in India, in its overzealousness, perhaps, as an anti-Hindu creed, is a little more guilty of this inhumanity, than in other countries, Persia and Turkey for example. The main part, however, of the cow-slaughter, that is responsible for denuding India of its wealth in milch cattle, is the daily quantity of beef and meat of other descriptions required for ration supplied to the British soldier in cantonments. The Veda says, you will win (the life of) cows by dint of 'right-handed' action. Covert hood-winking attempts at changing the spirit of a cow-eating community will only defeat their end, as soon as the pressure of a temporary exigency which alone can make a conniving conciliation successful, for the time being of course, is taken off. Convert the heart of those that kill cows. Make them overtly Arya, and then they will cease to kill cattle. Demonstrate to them the economic good of preserving cattle. Teach them the lesson of humanity, of kindness towards animals. Tell them the very resolve, the attitude they assume when they become cow-protecting, or for that matter cattle-protecting, elevates them.

The Veda denounces the killing of horses with the same severity, that it employs towards the killing of cows. Both actions incur capital punishment. The culprit is ordered to be shot, literally, pierced with lead.

Horses, too, are to be saved by the same sort of means that help in the protection of cows.

Last of all is mentioned the acquisition of wealth and of gold. These come of themselves, when the right hand is active. Penury is for the idle. Not so much the protection of your treasures against thieves and thugs will avail you in making you wealthy, as will the mastery of an art accompanied by the readiness for toil. Any the greatest amount of money lent out on interest stands the chance of being lost. The transaction is no better than gambling in as much as the money it brings is acquired without exertion. The *shastras* declare the food offered by one whose dependance for subsis-

tence is solely on interest as impure unworthy of being accepted. A little interest is perhaps necessary in the interest of trade. Only when the practise is carried to excess, when interest becomes the living of an individual or of a community, it saps the strength of the latter, and instead of a gain becomes a perpetual and ever-recurring loss, economic as well as commercial. The gospel of the *Veda* is the gospel of action. It prohibits any sort of gambling, unless activity of the organs itself becomes a game under the same head, as in the last verse of the hymn, where अक्षाः i. e. organs are exhorted to give a profitable game, फलवती द्युवं, it appears to have become.

AM I A DOCTOR?

(BY "MEDICO".)

From morning till evening, with the exception of a few hours at noon when I take my meals I keep sitting in my office in wait for some patients. I go on reading some big-sized medical book, apparently absorbed in it, but looking askance from the window of my shop to see when a patient turns up. And whenever I see a patient is coming how I at once cover my anxious face with an air of serenity and dignity. The patient steps in and takes a seat. If I ever become a doctor of repute, I will never offer any chair to my patients. It is below my dignity. Patients are after all inferior beings.

My patient sits and I look at him with an absorbing attention. I see

him from head to foot and at once ask him. "What is your complaint please?" Out comes the answer :—'Cough, doctor!' And after some brief preliminary questions, out comes the doctor's stethoscope. After a thorough examination the case is diagnosed to be that of Phthisis. The patient is informed that she is suffering from simple cough and is given much hope and encouragement while a nice prescription is handed to her with all the necessary directions.

The patient very respectfully and modestly takes some money out of her pocket and puts it on the doctor's table. The doctor, formally refusing it once, deposits it in his pocket with a little

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nod of the head, a smile and a 'thank you.'

The patient again enquires about the method of taking her medicine and diet and leaves the doctor's office.

Free or paid consultations go on and the doctor goes on changing medicines, trying one after another, but to no effect. To be on the safe side, the doctor whispers the graveness of the case to the patient's relatives and friends. They also give up all hope for the patient and begin to look anxiously at her. They say looks convey more than words. The patient reads the looks, thinks herself *bas* and slowly and steadily progresses towards the eternal goal of all those that live.

The day comes when we hear her relatives weeping, crying and beating their heads and we quickly understand what has taken place. Some-body informs the doctor that his patient is gone. The immediate and sympathising reply is 'Poor soul ! this is what I expected. I informed her relatives. I tried my level best, but really the case was incurable. Poor India ! All is due to poverty. The only real remedy is Swaraj'.

The patient goes for ever. Sleeps a sound and uninterrupted sleep. But what has she left behind ? The pen

trembles to write — Phthisis in her relatives.

As a doctor my duty is done. I have got my fees and given consultation. This is quite profession-like. I am a business man. I have sold my sincere and sound advice. I am a *Vaishya*. But I have heard somewhere from the Arya Samaj platform that doctors are *Brahmans*. According to my reasoning, I am a *Vaishya* O God—a great gulf between a *Brahman* and a *Vaishya* ! The idea confuses. My head becomes heavy. I become dull with vacant looks in my eyes. My peace of mind and sleep are gone. This gulf is nothing but 'done of money ? Is it wrong to love money ? Don't *Brahmans* love money ? Don't they even cleanse utensils for the sake of money ? Are they *Brahmans* ? Oh. No.

Great God ! I have sinned. I am not what I ought to have been. I ought to have wept with the patient. I ought to have smiled with her. I was her Family doctor. Did I ever go to her house and inform her about the method of leading her life instead of dragging it ? What did I do to save her relatives from that scourge of humanity—Phthisis ? Nothing. Am I a doctor then ? No. I am only a *Vaishya* !

GLIMPSES OF DAYA-NAND.

Not all forms and conventions did Dayanand detest. As a reformer of society, a founder of a Samaj, not of a Vada, i. e. ism, he was conscious of the sociological value of ceremonies and rituals. As for the fulfilment of its spiritual character the human soul requires a human body, so, too, does the spirit of a society—we use the term not to denote a section but as a synonym of humanity, the difference of points of view requiring a difference of terms — require, for its realisation in fact, a body of forms and formulæ. To the ordinary intellect, conception of the abstract is a most difficult task. Minds the most subtle visualise ideas through concrete forms. Sociology is a science meant pre-eminently for the advancement of the minds of the masses. Its chief aim is to knit the common people together, so that in weal and woe they act in concert. And what stronger bond for this purpose than the ceremonies and rituals that form the physical and concrete aspect of religion? The higher philosophy in its abstruse abstractions is for the advanced few. That for the many the door of the unearthly bliss be not barred, sociologists—the Arya rishis, while performing this function, appear to us to have assumed this role — have devised *yajnas* and *sanskaras*. The *mantras* on which *yogis* meditate, in a state of trance, in absolute seclusion from the world and its sensations, the *yajman* recites in the performance of his household ritual. In the Gita the difference between the two processes, both of which *Krishna* styles *yajna*, has been very succinctly brought out. *Life in the Formless is for the Sanyasi,*

one who is at the last stage of his existence. In the other stages the forms remain. The Sanyasi cuts off his *yajnopavita*, the thread binding him with *yajua*. **तंत्रा यज्ञोनोपनह्यामि.** By this highly symbolical act he steps out of the world of symbols. What Dayanand condemned was the multiplication of inane and inert forms that had by the clumsy burden of their very excessiveness clogged the progress of the spirit they embodied? The abstract notions they represented were concealed behind the multitude of details that defeated the very idea of representation which to fulfil its purpose, must cover only the broad features of the abstract presentation. Too much imagery, instead of helping the poets' expression, makes his lines mystic and cumbrous. It mystifies his very notion.

Dayanand sanctions forms only so far as they are necessary for the realisation of the religious spirit and to make religion a collective concern of the community. In individual concentration the process to be followed is that of elimination of forms. For communal concentration, on the contrary, a concrete centre meditation is indispensable. Here the path is that of **प्रवृत्ति Parvritti**, attachment. You seek the world and with it the forms that compose it.

This will demonstrate why Dayanand condemned idol worship for the purpose of personal prayer, prescribing for it's secluded *Samdhya* while congregations, says he, should meet to perform *devayajna* which term connotes all the collective performances of the Samaj. *Sanskarvidhi*, a book of ritual was

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compiled to guide these ~~ceremonies~~. In it symbols and formulae find abundant prescription. People ignorant of this fundamental difference between the two sorts of duties, viz. personal and social, point out an inconsistency between the injunctions of the Swami under the two heads. The inconsistency, if any, is an evidence of the deep sociological insight that the founder of an all-sided human Samaj possessed. When you meet, you meet in body, when you withdraw, you withdraw to be bodiless.

VIII.

THE WARRIOR.

Dayanand is said to have founded a church militant. His followers regard the epithet as a compliment rather than as a denunciation of their Society. Of all religions Hinduism is thought to be the most peaceful. Divided into so many sects it has a wonderful power of accommodating them all. With non-Hindu religions it never bothers itself. The latter are ever busy proselytising Hindus, and thinning day by day the ranks of the followers of the Veda. Hinduism regards such renegade members of the community as so many men and women fallen beyond reclamation.

So constituted Hinduism was regarded to be a racial group rather than a religious dispensation. Regarding the Veda as Divine Revelation, *Apaurusheya Jnan*, Superhuman Wisdom, the Hindu has allowed his scriptures to be treated historically, exegetically, linguistically, as it has suited the whims of the individual interpreter to treat it. This supine indifference on the part of the Hindu

has resulted in his own conviction that his, of all communities in the world, is the one that has no mission, no culture, no message for humanity. His religion he has to borrow.

Not so did Dayanand view his religion. The Aryan faith, to him, was a dispensation divine. It was the primitive, and therefore the only, revelation from Heaven. What the adversaries considered its rawness was to Dayanand, the very evidence of the perfection of his faith. For knowledge divine can know no cancellation, no change, no evolution. What were regarded as later rehabilitations of the once antiquated obsolete religion had made no new discovery in the realm either of morals or of spirituality. They had on the contrary led to a strife of sects, a war among communities, which stuck, one to this accretion, another to that—local temporary conventions devised at the time.

His deep insight into the history of his community had made Dayanand conscious that in the past his religion had been a missionary faith. Of divine dispensation this is the one indispensable characteristic that the religion revealed by God must find its following. It ought to propagate itself. Addressed to the whole humanity, it should attempt to cover the confines of the whole human family.

Led by this feeling Dayanand proceeded to change the religious attitude of the whole Arya race. In total concurrence with none, he believed in his heart of hearts that the sects that composed Hinduism, had yet a common foundation. They all derived their fundamentals from

the commandments of the Veda. Each sect professed to be so derived. He, therefore, caught hold of that common denominator, and sought to reduce to it every fraction of the Arya community. His was a bold vision, but he was convinced that the vision was right. Through fighting alone, fighting with the Hindu rival sects, he could evolve Hindu harmony. And when his own community was made one, it could be pitted against all non-Aryan churches.

Not that he was prejudiced in favour of the Aryan faith because he was born in that faith. If that consideration had weighed with him, he may have taken up the cause of one of the sects of Hinduism, for he was born in one. It was far easier to join, and help in the spread of, one of the existing creeds, Aryan or Non-Aryan. Had he been ambitious, he could have established an entirely new creed which his followers may have named after the ambitious apostle. His church was neither one of those existing, nor, too, quite a new dispensation. He was a follower of the *Rishis* of old, and yet, for his time, the founder of a new church.

He had to wage war, on the one side, against the whole Arya community which was at the time sunk in deep un-Aryan superstition. On the other side there were the non-Aryan churches preying on the effete Hindu. The latter, complaisantly helpless in the face of the non-Arya, had life enough to resist the attack of a fellow-Arya. He could condemn him, ostracise him, checkmate him, in short render his efforts at reform null and void. For internal strife, for fighting against itself,

Hinduism was yet strong enough. The Non-Hindu it could not check. The Hindu it would not allow to advance. Dayanand knew, self-defence and self-reform would proceed hand-in-hand. He, therefore, set his hand to both the missions simultaneously.

A combat or two in *Shastric* learning, into which Dayanand entered with his *pauranic* adversaries, we have already had the occasion to describe. At Kashi there took place a right historic battle. While preaching elsewhere, he had been confronted with a *vyavastha* of the *Kashi* alumni. Everywhere the latter were cited as authorities in religion. Their learning was reputed to be great, and their opinion had the same weight with the commonalty, that citations from *shastras* had with Dayanand. Dayanaud determined to attack *pauranism* in its strongest citadel.

He was alone when he reached Benares. According to his wont he gave an open challenge to all the *pandits* there, and began, by a series of lectures, his usual denunciation of idolatory. Now Kashi is known to be a city of Idols. Every little stone in the town is regarded an incarnation of Shankar. On any side you turn, you are confronted with a temple in which a number of images are lodged. The criticism of Dayanand was unsparing. His commonsense logic went into the hearts of his hearers. His harangues were largely attended, and the revolution they brought about was so great and far-reaching that the *alumni*, who had for centuries enjoyed an undisturbed repose, were for a moment shaken in their *asans* and *gaddis*. Those who had viewed the atrocities of the Mogul and the Pathan with

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non-chalance, rubbed their eyes with wonder now that their reputation for Shastrie erudition was at stake.

The Raja of Kashi arranged a *shastrartha*, a religious polemic, at which he was himself to preside. The *rishi*, sitting alone, with only a loin-cloth on, while before him were arrayed all the notable scholars and men of religious repute of the literary Athens of India, clad in the gorgeous colours of their various sects, was a spectacle to arouse the wonder of gods. What transpired at the meeting may, to the lay reader, prove nothing easier than an Egyptian hieroglyphic. Those versed in the Arya *shastras* can alone follow these learned polemics. At a point in the course of that debate, a paper purporting to be from a scripture was handed to the *rishi* who began forthwith to examine its contents. The *pandits*, who had all the time been on the lookout, found now their opportunity, and clapping their hands declared that they had silenced the *rishi*. The Raja joined the insidious game and the assembly dispersed amidst shouts and disorder. For the ruffians the time was opportune to assert their roguish instincts. They threw about filth and brickbats, but some inscrutable destiny kept the *rishi* safe. That his adversaries indulged in this inenviable frolic was proof incontrovertible of the *rishi*'s moral victory. His logic was answered with brickbats. In the field of *shastras* the collective learning of Kashi had not been his match.

This as regards the opposition that Dayananda had to meet with at the hands of pseudo-Aryas. His mission, however, was not simply to reform Hinduism. In the Arya fold there had arisen reformers and saints without

number. Each had, according to his stamina, given the dying community one more short lease of existence. He had made a reform here and a reform there, and had by dint of that reform pushed the wheel of the community a few steps further. A section of the community had accepted his creed in its totality while to the rest, the spirit he had breathed hath served as a leaven. The inequality of the progress that the two sections had put forth had led to a further division of the society. One more sect had been added to the already large number of Hindu *sampradayas*, isms.

Dayanand addressed his appeal to humanity at large. कृत्वन्ते विश्वमार्यम् Make the whole world Arya : such was the commandment of the Veda. Arya tradition, recorded in the historic literature of the Aryas, was a testimony that corroborated that statement of the Arya mission. Dayanand, therefore, made it a plank in his platform to criticise, and where necessary, to denounce non-Aryan faiths.

Shastrarthas like that held at Kashi had been taking place in India from time to time. In their intensity and volume they may have been inferior to that won by Dayananda. Viewed, however, from their qualitative aspect they belonged to the same category. The controversy arranged at Chandpur, however, was in the history of India extending over no smaller a period than that which had intervened since the days of the Mahabharat was unique. A *Sadhu* of the Arya community had taken the field against Christian fathers and Mohammeden Millas. The controversy had from the first been designed to last for at least three days. The

Mulla and the father had, however, been so completely discomfited the very first day that on the second no vestige of their encampments was to be found in that vicinity. It was for the first time after long that a warrior of the Arya faith had routed the combined armies of Christianity and Islam. The beginning in Arya aggression had been made.

The beginning was auspicious. To the eternal credit of these Semitic faiths it must be admitted that their followers introduced lesser acrimony into the debate than did the *Pauranics*. No untoward event ever occurred in Dayanand's polemics with the representatives of these faiths. Of this, however, later.

Spiritual Nationalism of Rishi Dayanand.

(BY PR. T. L. VASWANI, M.A.)

The Arya Samaj--its seed of strength is in Rishi Dayanand.

There was in him a power, a *shakti*. He compelled attention in his days. He will, I believe, challenge the world's attention in the coming days. His life and message have a world-value.

A dynamic personality his. A centre of forces, this Rishi of modern India. His strength was in his Brahmacharya. And I believe Brahmacharya must become the basis of our New Education, New Social Order, New Politics, New Nationalism, New Civilization. Ancient India's greatness was in this:—India was a *brahmachari* Nation.

Brahmacharya means literally:—Placing at the feet of God. Ancient India strove to place the fruits of her culture and civilization at the feet of God. To day the nations,—and India more, perhaps, than many,—have surrendered themselves to the senses. To day more urgently, perhaps, than before the nations need the message of Brahmacharya.

Two thousand years of Christian era! Two thousand years of "progress," you say. This "Progress" is a Dance of Death. This "progress" is *bhoga*. And Civilization's future is not in *bhoga* of the senses but in the power, the *shakti* of the Atman, the Ideal.

The modern age is conspicuous for three achievements : (1) scientific revolution (2) industrial revolution and (3) political revolution (a) *Scientific Revolution* :—You have steam and electricity. You cross the ocean quickly. You travel in the train with speed. You have motor and cables. The wireless brings you messages from great distances. By means of the telephone, New York speaks to London across the Atlantic. What a revolution achieved by science !

And yet mere science may only prove a destructive force. Nations, today, drop bombs from aeroplanes over poor villagers. The Nations have learnt the art of destruction,—from science. Mere science may be no better than a monster ready to slay. Science has brought in complexity, has created a

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heavy *environment*, beneath the burden of which the higher life of man may be stifled. Science has multiplied our physical powers. But these powers may be *used or abused*. Science must be *disciplined* by Brahmanavidya, by knowledge of the *Atman*, by fellowship with the Soul. This message gave India in the long ago. This message was reworded by Rishi Dayanand.

(b) *Industrial Revolution* :—The modern age is an industrial age. Machines make possible production on a large scale. But they, also, dehumanise life. Look into big cities. Many machines. But the man is subordinated to the Machine. Much wealth. But there are in it the groans and tears of the poor. There are slums. There is appalling poverty in the cities. The cities are as gates of Hell. Hence the need, again of the ancient message. You have it in the Gita—"They who cook for themselves alone feed upon nothing but sin." You have it in the Rig Veda :—"The man who eats by himself regardless of others' wants only heaps upon himself sin after sin." Make money,—says the modern man. "But share it with the poor,"—says the Ancient Wisdom,

(c) *Political Revolution* :—There is a cry for self-government everywhere. And political changes of a radical character have taken place in civilized countries, except India. The dominant cry of the Age is :—freedom. Freedom,—is a holy thing. But Freedom must not mean hate, murder, war. The Nations of Europe hate one another today. Hence the need, again of the message :—Freedom is for the service of Humanity. Aggressive

Nationalism has not helped Europe. It will not help India. Let our Nationalism be charged with Reverence for Humanity. To love India is not to hate Europe. Build rather in this ancient land an International India. So may India give her Meseage to the Nations !

The Message became a Flame in the heart of Rishi Dayanand. A Fire burnt into his soul. Love is not without a consuming Pain. Dayanand loved India. It pained him to see India in bondage. With a Flame of *atmashakti* within him, he moved from place to place to bear witness to the Aryan vision. He died, a martyr to the vision and dream of Aryavarta

Piteous, to-day, is the Nation's need of men with something of his Flame in their heart ! Worse than wickedness is inertia, is laziness. It is Hell. Into such a Hell is Hindustan to-day. For her people are still content with paper resolutions and paper schemes and public speeches. Her people have not yet awakened to new relations with life are not yet prepared for what God wants of them, Action, Yajna, Sacrifice. There is a story of a little girl. Her country is invaded. She gets the news. She prays to God to give her strength to serve her Nation. She goes to her mother. "Bless me, mother," she says, "for I go". "Whither wilt thou go" ? the mother asks, leaving me,—my only child "? "I go," says the girl, "to where the Spirits of my Ancestors call me. I go to tend the wounded on the battlefield." She gets her Mother's blessings. And on the way to the Battlefield she repeats the one Mantra, the one prayer :— "My life, a sacrifice to Thee, O Lord !"

Rishi Dayanand's life was a sacrifice to God. Will the Day come soon when India will have in different Provinces many men and women with the Flame Divine in their hearts, with the prayer upon their lips :—“This

life, a sacrifice to Thee, O Lord !” ? In that Day will be the glory of India's resurrection. And a Resurrected India will give what the world needs,—a Message for the healing of the Nations.

HINDU-MOSLEM RELATIONS IN BENGAL.

(BY BABOO ROMESH CHANDRA BANERJEE M.A.)

I beg to draw the attention of the reader to certain serious events in Bengal, as I hear, they are making whole-hearted efforts for the organisation and consolidation of the Hindus. In Bengal the Hindus are so hopelessly timid that they dare not move a finger in the direction of the reclamation of lost Hindus or of organisation of the Hindu community, for fear of the powerful Musalmans. But the latter do not hesitate to make attacks on Hindu men and women or on Hindu religion, whenever it suits their convenience. About two months ago, a party of Hindus, who used to sing religious songs in the streets of the town of Faridpur in East Bengal, were mercilessly beaten by Musalmans, without the Hindus uttering even a word of protest. There are many such incidents happening every now and then in Bengal, and in most places the weak and cowardly Hindus silently put up with them, lest even verbal protest should bring worse things upon them. Direct and indirect conversion of Hindus into Islam is of frequent occurrence in East Bengal. And there are “patriotic” Hindus, “brave” warriors, whose heroism, as a rule, consists in abusing the Government, and propiti-

ating the Moslem at the cost of Hindu interest and honour.

This is the condition of Bengal—peaceful Bengal, whence a “leader” went to the Punjab to curse that province for the Hindu-Moslem troubles. In the opinion of that great leader perhaps the fault of the Punjab Hindus lies in their attempt to defend their life and honour from Moslem attacks, while in happy Bengal, the “patriotic” Bengali Hindu will suffer himself to be kicked and cudgeled and spat upon by his Moslem brother and quietly and silently allow Hindu women to be outraged by the Faithful. Consequently there is no, Hindu-Moslem “conflict” in Bengal, and so her reputed Hindu leaders can preach homilies of peace to the Punjab Hindus.

If one were to write a history of the Hindu-Moslem events that usually take place in Bengal, but are hushed up for various reasons, it would shock outsiders and teach them the value of the Hindu-Moslem peace in Bengal. I shall give one striking example.

At the Bengal Provincial Conference held at Jessore in the last Easter Holidays, a Bengali Hindu, in the course of

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his speech had the temerity to say that there is no sanction in the Hindu Shastras for the current caste system, nor is there any such sanction in the Koran. At this, a pious Moslem delegate rose up and said that it was improper for a *Kafir* to take the name of the Koran, so the *Kafir* must withdraw his words and apologize. The Hindus dared not utter a single word in protest and the poor Hindu speaker was compelled to apologize. Yet, all the fire-eating Hindu heroes of Bengal were assembled there for the purpose of winning Swaraj. Your famous Shyam-sundar Babu, the liberal patriot Subash Chandra Bose, and other great heroes were there. I do not mean any disrespect to these great men; but I simply point out the significance of the incident. I had it from a reliable friend, who was present among the visitors.

An Urdu paper of Calcutta published a series of articles on the reclamation of *Malkanas*. The name of the paper, as far as I remember, is "*Asar-i-Jadid*". It called upon Musalmans to try to bring back the Hinduised *Malkanas* by persuasion, but, it added, if persuasion failed, then it would be the duty of the Musalmans to kill these perverted Moslems according to the laws of Islam. I have heard of no Hindu of Bengal daring to utter a single word of protest against this outburst of Moslem fanaticism.

Recently, prominent Moslem N.C.O. leaders, like Moulvi Ekram Khan, Peer Badshah Mian of East Bengal and others, have issued a circular in which they have violently abused Swami ShraddhaNanda for his reclamation work and threatened terrible revenge on the Hindus. This fanatical

sheet is being circulated among Musalmans for the purpose of exciting them to violence. Our fearless Hindu N.C.O. leaders have wisely shut up their mouth, while the other party are preparing for our destruction.

Let the world know the value of the apparent peace between Hindus and Musalmans in Bengal and let outsiders learn to appraise the wise counsil of a Bengali Hindu leader; who travels far away from Bengal to preach Hindu-Muslim unity and brotherhood !

In conclusion, I would earnestly press upon your attention the urgency of Arya propaganda in Bengal. The very idea of Hindu brotherhood, solidarity, and self-defence is absent here. The Arya Samaj should come and show the way of salvation to the dying, drooping and cowardly Bengali Hindus. There is no cause for despair. Who knew the Congress and cared for it thirty years back ? Who ever dreamt that Semi-Musalmans can be Hinduised ? Similarly, if few Bengalees care for the Arya Samaj and its ideals now, the whole of Bengal may rally round its banner a few years hence. But work must be commenced at once ; otherwise the vocal but timid and Moslem-ridden Hindus of Bengal will be lost for ever.

I do not mean any ill-will to the Moslem ; but I want that in every thing he should give equal rights to the Hindu and regard him with sincere esteem, and not as a natural prey.

The message of Arya Pratinidhi Sabha was not widely circulated ; there is no hope from the Bengali Hindus at the beginning. If the mission comes, then it will create its own field and will surely succeed.

PUBERTY ; ADOLESCENCE ; VIRILITY.*

(BY PROFESSOR SATYAVRATA SIDHANTALANKAR.)

Till he is fourteen years, a boy's development is marked by nothing unusual. After that a mysterious period begins. Stare straight into the eyes of a boy of fifteen—you will read, through them, a language written on the sheets of his heart. His looks are no longer vacant as they used to appear when he was a child. He talks through them, and sometimes, very eloquently too. Fain would a young-man conceal the loud outpouring of his heart, had the eyes not betrayed it all.

Corresponding to this mental change, the changes in the physical life are not a few. All these changes, beginning at fifteen, hurry up their completion before the age of twenty-five. Shall I call it a period of mystery—for it is nothing if not that ! Twenty-five minus fifteen, then, is the period of the development of mysterious creative powers in the body of man,

Physiologists divide this period of ten years into two parts—Puberty and Adolescence.

Puberty marks the beginning of the changes. In boys the upper lip, the chin and the pubes are covered with hair, the voice grows powerful by the increase in the depth of the larynx and sexual organs undergo further development becoming capable of producing fertile semen. In girls the period is marked by menstruation or monthly course. But this is only a beginning of youth—the raising of

the superstructure still requires plastering and cementing. Years should be allowed to pass before the building could be made use of. The appearance of puberty is not enough for entitling a youngman to contract marriage. Says Dr. Cowen in *the Science of a New Life*, "The greatest error in fixing the present age for marriage arises from taking the arrival of puberty as the proper time, it being popularly supposed that when this is present the woman is capable of reproduction and ready for marriage. This is a fallacy, for marriage should be consummated only between a physiologically perfect man and woman." "Now when puberty first shows itself", adds the learned doctor, "the osseous part of the system is not fully grown, which implies.....that the reproductive element is not fully grown."

The time following puberty may be termed Adolescence, though puberty is only the beginning and adolescence the end of one and the same period of life extending over ten years, from fifteen to twenty-five. After puberty, which generally covers a period of two or three years, one has to wait for eight years or more, to lay by some physical and mental capital to one's account, without which bankruptcy is bound to be at a near run.

But fifteen for the beginning of puberty and twenty-five for the close of adolescence is not a hard and fast rule. Human life is elastic. These

* A Chapter out of the author's forthcoming publication entitled
'Confidential Talks to Youngman on Sexual Matters.'

periods can be quickened or delayed and largely depend on the food one eats, the dress one wears and the life one lives. Climate also is a very potent factor. A life of hardihood in a village unsoiled by the evils of modern civilization tends to postpone the early appearance of puberty, whereas riches and luxuries, unaccompanied by the restraining force of self-control, hasten to make a man of a little child.

Precocity is dangerous. There must be something wrong with a boy who is over-promising. Early sexual development is a sure indication of an early decay. Let your child grow but let him not grow before his time. Parents and teachers can never be too cautious in this respect.

"But what is the cause of all this change—the cause of this sudden revolution in the body and mind of man—what, in short, is the cause of Puberty and virility?"

To understand it one must understand something about glands.

The researches of physiologists have lead them to believe that the secretions of glands are potent factors in the making of human mechanism. There are salivary glands in the mouth that go on secreting all the time and the cessation of which will make life unbearable by the troublesome feeling of a dry mouth. Gastric glands in the stomach form another secretion. The Liver, Pancreas and Testicles are secretory glands. These secretions are assigned their proper function—some digestive, some lubricating, some excretary, some reproductive and some of body building.

Formerly physiologists were familiar only with such glands as poured out their secretions upon some surface of the body, interior (like mucous membranes) or exterior (like the skin). They also knew that such secretions were carried inside or outside the body by the secretary or excretary ducts—for example, secretary ducts of the liver and excretary ducts of the sweat or tear glands. Urine, sweat, tears etc. are excretions. If retained in the body they are harmful. Saliva, bile etc., are secretions which serve a purpose in the economy of human nature. Both pass through small ducts issuing from glands to the surface (interior or exterior) where they have to act.

With the advance of Anatomy some other structures were discovered in the body which bore a striking resemblance to this structure of duct-glands. Thyroid in the neck, and adrenal in the abdomen whose function was still unknown, had no ducts whatsoever, but researches showed their structures to be like other glands and this led the physiologists to enquire as to their true nature.

"What had hitherto prevented classification of thyroid or adrenal as glands," says Dr. Donis Berman in *The Glands Regulating Personality*, "was the fact that they possessed no visible pathways for the removal of their secretion. So now they were set apart as the *ductless glands*, the glands without ducts, as contrasted with the glands normally equipped with ducts."

This was the discovery. There are glands with ducts but there also are glands without ducts. The secretions of the former are carried through ducts and are therefore called *External*; the secretions of the latter are carried

without ducts and therefore are called *Internal*. Something more. Physiologists found out that there were glands that formed internal secretion only, such as, thyroid and adrenal ; there were glands that formed external secretion only, such as, salivary and gastric glands, and there were also glands that formed both the secretions, internal and external, such as, liver, pancreas and testicles.

The psychical and physiological changes manifesting themselves at puberty are due to the internal and external secretions of the testicles. It will be better understood by examining cases of castration which consists in the removal of the sexual glands. Take two calves of the same age and pedigree. Get one of them castrated and let the other grow in his natural sexual development. One year will be more than enough to bring the differences between the two into bold relief. The uncastrated animal with his gigantic body, formidable strength and fiery spirit presents a wonderful contrast to his emasculated brother whose neck and horns have remained undeveloped, whose hair on the forehead have grown but little and whose tame looks embolden the weakest of mankind to use him as a beast of burden.

The same is the case with a horse. A stallion, unmolested by the veterinarian's knife, grows up into a perfect type of his race. His grand long neck covered thick with bushy hairs, stalwart body, with flesh full on all joints, tall stature with a majestic appearance, rouse the ambition of a prince for his possession. His agile motions, spirited dance and grand look! Does it not all look delightful ? Con-

trasted to a stallion is the washerman's gelding, a number of whose kind ran about the nasty streets of our cities. The two have developed along radically different lines ; the reason of the strength of the stallion being the presence, and of the weakness of the gelding, the absence, of the sexual glands, and therefore, of their internal and external secretions.

In the harems of the Mohammedan kings they used to keep eunuchs, and whenever needed, young boys were castrated for this purpose. "In Italy", says Dr. Foote, "in the eighteenth century, about four thousand boys were annually castrated for opera singing and celebrating the mass ! Why ? Because the operation arrested the full development of the masculine voice."

The testicles in a man produce the masculine powers whereas the ovaries in a woman producethe feminine powers. Remove the sexual glands of a man and he will develop feminine characteristics ; extirpate the ovaries of a woman and she will develop masculine characteristics. The virility in both the sexes is the direct result of the production and absorption of secretions of the sexual glands. The greater the strength the greater should naturally be the capacity of the testicles ; the lesser the strength the lesser should naturally be the capacity of the testicles. So much so is the fact admitted in medical circles that some authorities regard old age as only a result of the shrinking of the sexual glands. Experiments are being carried on in America in transplantation of the glands and cases have been reported where the operations have been attended with wonderful success. Not only has the removal of the testicles

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caused cessation of the virility of a normal man but also injections of testicular extracts in impotent men have re-established their lost manhood. This fact if true, throws a flood of light on the old Aryan conception of the conquest of death through observing Brahmacharya, for, Bramacharya, as I understand it in physiological language, is only the method of keeping the sexual glands in a healthy condition. A Brahmachari should be taught to exercise control over the secretion of sexual glands, for thus and only thus can normal life be preserved and a premature death warded off.

As already pointed out the secretion of the testicles is both internal and external. Internal secretion begins from a very young age and by being absorbed in the system is responsible for the many changes observed at puberty. External secretion makes its appearance late with the maturity of sperms and is carried out for purposes of fertilization through the complex reproductive mechanism.

Internal secretion is constantly absorbed into the lymph and blood. Thus it is carried to the brain and spinal cord all over the body, giving an indomitable strength to the individual. The stallion became a stallion, the bull a bull and the wrestler a wrestler because of this internal secretion. An unbroken-flow and absorption of it brings about a harmonious development of all limbs and makes the individual look beautiful. Where the glands are absent or atrophied, growth stops short. Misuse of the reproductive organs hinders the proper production of the internal secretion and the invariable result is a halt to all physical, mental and moral growth. Any kind of sexual stimulation begins

producing external secretion and thus puts a break on the constant production of the internal secretion—the Essence of Virility—which, to be absorbed into the body, requires no effort on the part of the individual. Internal secretion manifests itself in the form of sublime beauty, so very common on the faces of spiritual teachers and in a more or less degree on everybody's face, unless the individual be a very dissipated one. This secretion tones the system by giving Virility and Manhood. In the Ayurvedic system, internal secretion is called औजस् and external secretion वीज, शुक्र or रेतस्.

The external secretion of the testicles, the spermatozoa, like the internal secretion, is, after puberty and adolescence, constantly secreted, though in a very imperceptible quantity, and carried to the seminal vesicles. When the vesicles are filled their contents (the external secretion) if not re-absorbed, are emptied out into the urethral canal under some erotic dream at the time of sleeping. This phenomenon is known as nocturnal emission स्वप्नदोष, so universal among boys at puberty.

It should be remembered that external secretion of the testes is discharged from the body in one of the three ways :—(1) voluntary ; (2) involuntary ; (3) sub-voluntary.

Voluntary emissions are accompanied with mental excitement such as, self-abuse, sexual perversions, social vice and legal intercourse. Voluntary emissions may be useful only when indulged in marital relations with moderation. Otherwise they are blood-sapping. Involuntary emissions are caused by mechanical pressure on the seminal vesicles (वीय कोष); such as,

emissions by overstraining at stools and emissions unaccompanied by dreams. Such emissions are an index to a diseased condition of the system and the complaint should be immediately referred for remedy to some able medical adviser. Sub-voluntary emissions are caused when the seminal vesicles are overflooded. The pressure of the extended vesicles sets up erotic dreams to float before the mind's eye and a sub-voluntary emission takes place to relieve the undue pressure.

Sub-voluntary emissions are very complex in their nature. Sometimes, even though the vesicles are not full, impure dreams, as remnants of the bad impressions received during day-time through obscene literature or foul scenes, begin moving about in the mind, causing excitement followed by emissions. On other occasions, as already said, dreams might be the results of the pressure caused upon the vesicles because they are overflooded. Of the two the former is caused by an impure mind and the latter by a physiological condition and as such the former is controllable by controlling the mind but the latter seems uncontrollable. In normal health, when the external secretion fills up the seminal vesicles and no more of it can be contained in it, the vesicles, accompanied by erotic dreams, empty their contents and the emission may be called *physiological*. Any other process of sub-voluntary emission is *pathological*.

"Are, then, the physiological emusions useful? Should the external secretion be allowed to pass out when the vesicles be extended to the full?"

Our reply is an emphatic 'NO'!

Internal secretion of the testicles (**ओज़**) is naturally *absorbed* without any exertion on the part of man but external secretion (**वीज**) can also be *re-absorbed* by Abhyas, with wonderful results. Of itself it won't be absorbed and will pass out when the vesicles become extended. It is for such as these that wise men have advised marriage at twenty-five. That is the lowest Brahmacharya. But that was not the ideal. The Yogis of yore were conversant with certain practices by which the external secretion, which could give life to a new being, was capable, by being *re-absorbed* into the blood, not of giving but of renewing life. Such souls were called **अधर्वेतस्**, or Aditya Brahmacharis who lived a life of celibacy up till forty-eight years or more. The hard life of a Brahmachari coupled with the spiritual training that he had to undergo under the guidance of a Guru was compulsory for adults of ancient Aryavart. In the obscurity of the past the teachers of humanity laboured hard to mould characters of young Brahmacharis. Their ideal was high it was the realization of the One Supreme. With Him before their eyes they sought their lessons of "re-absorption of the external secretion into the blood", of which the modern physiologists are yet doubting the practicability.

If youngmen will understand the importance of the internal secretion of the testes in the building of manhood they will think twice before they fall in the meshes of the Satan whose victims they, most of them, are! Puberty is the time of development. It is a time when you grow rich. Vain indeed is the man—and sad must be

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his case—who in his temporary richness forgets himself and begins squandering away the little that has been given him. All vices that excite the external secretion to flow are present among the youth of our times. All luxuries stimulate it. The flow of

the external secretion cannot but harm the internal secretion by exhausting the sexual glands. This is the verdict of modern physiology and of the Rishis of long ago.

Absorb in yourself ओजस् and वीर्यम् —and be a Virile Man.

THE IDEAL OF THE STUDY OF ANCIENT INDIAN HISTORY.

INAUGURAL LECTURE TO THE GURUKULA UNIVERSITY.

Delivered on April 22nd 1923.

BY PROFESSOR BIDHUBHUSHAN DUTTA M. A.

Dr. MEHTA UNIVERSITY PROFESSOR OF INDIAN HISTORY.

*The occasion of the present Discourse :
the Reader's feeling towards it : and
sense of esteem.*

In bringing forward the first of the series of discourses on Ancient Indian History and Culture that it is intended to hold at Gurukula, I cannot avoid to fulfil the duty of expressing my thankfulness and gratitude to the gentlemen and parties whose noble exertion and broad mind and truly patriotic zeal have placed the subject in the scheme of Gurukula curriculum. I would not have done so as a matter of mere formality ; but I find that every factor relating to this gives some additional value and worth to the subject that I have undertaken. I also recollect with a sense of reverence the circumstances that have led me to it, and hope to be excused, if in the course of the present discourse, I happen to make any reference to them.

No one can exaggerate or over-estimate the scope and magnitude of the subject. My drawbacks and shortcomings are immensely great. Fain would I have thought that the task might devolve on abler hands. Still I have got the boldness that fondness often begets.

*Choice of language : vernacular as the
medium of instruction : the readers'
hope that Hindi may so be
used soon.*

A difficulty has offered itself in the choice of the language in which to address students. And although it has come from an authentic source—"What matters it whether the words thou utterest in prayer are Hebrew or Syrian or whether the place in which thou seekest the Truth is the farthest city of the East or the West—Jabilka or Jabilsa" (Sana'i) ; and although the Imperial English tongue has so long been a necessity—an uncongenial necessity—and served as an Esperanto and furnished us a basis for national unity and the "dawn of a better and more glorious day for Hindustan", the time is now up when a particular vernacular of the land bearing the spirit of her life and culture should be used as a medium in all our concerns. Hindi has already established its claim and been recognised as the Rastra-bhasa—*lingua franca* of India ; may it soon be turned into a vehicle for our literature and science on a larger scale.

No where else do we suffer so keenly and vitally on account of a foreign tongue as medium, as in the field of education and culture. The education that is imparted to children and youngmen through a foreign language under compulsion, is for all abnormal and unnatural, and for most ruinous in respect of sound knowledge and high ideals. They lie

estranged from the natural influence of their own language and their own culture becoming more or less like foreigners in their own land. Culture of the people, also taken as a collective body, does not suffer any the less for this barrier. In times free from it, the culture of this land was much more diffused amongst the people in general, than in the modern times. In these days also our common people who lie outside the range of the foreign scheme of education, are rather more advanced in points of some of the best elements in the culture of the land.

Happily for us, Gurukula in her unique attempt to hold out living many of the ancient cultural and religious ideas of the country has a requisition for the most diffused and diffusible vernacular in India as being the medium of the course of teaching. How would I like to have owned it as our common provincial? But conscious as I am of the urgent necessity and efficacy of one's own language being the instrument of learning, and faithful to the tradition of the institution that I have joined, I will, unless for special reasons, give out the discourses in the recognised vernacular, when some definite subject-matter is followed, and I find it sufficiently eligible.

The Principal points of the Present Lecture :—

I.

Determination of a standpoint and fixing the Ideal :

The first and foremost point of importance is the determination of a standpoint from which to deal with the Subject. It is a matter in regard to which one might be advised rather to keep silent and not commit himself. But I should rather be subject to side-remarks and derision for plain speaking and open heart, than be regarded in obscure esteem for conceited aloofness. The characteristic weakness or strength of the profession to which I belong, and which serves as refuge on many occasions has no special appeal for me. The world is tired of pedantry and

bombasticity. And if in the pursuit of facts which we have taken up as our duty, we make reference to some facts that have led us to it, at least the lover of facts will excuse us for our short-comings.

Difficulty of the task.

Still it is somewhat difficult to define an ideal or a stand-point at such a stage ; and that specially with regard to a subject that has no comprehensive logic to regulate. But I have been rather fortunate in having a set of circumstances, that have come to my help. I have only taken their lessons to my account, and not formulated any rules. I think I should clear them to a certain extent.

The Reader narrates some circumstances that came to his help.

Early drawn to the association of some esteemed scholars then working under the University of Calcutta, just on the closure of the course of Bachelor of Arts, I came for the first time to realise a little bit—that there lay a way to a systematic course of study of the Ancient Indian Culture and History, under the auspices of an institution or university. The subject was up till then mostly a matter of pursuit by individual scholars, writers or patriots. And thanks to the endeavours of western scholars, eyes of the modern world were being led to the immense treasures of Ancient India—her literature, art, philosophy and religion ; there has been a competition amongst able writers vying with each other in their attempt to bring them out to the easy reach of modern students : in France, Germany, England, America and even in Japan. What Herodotus and Ktesias learnt from hearsay account, Megasthenes, Daimachus and Dionysius observed through personal experience, Arrian and Curtius Rufus treated out of their most praiseworthy historical interest, the Merchant of the Periplus could not lose sight of in recording an organised trade, Fahien, Hiuen Tsang, I-tsing and quite an illustrious band of Pilgrims gave account of in terms so eloquent in respect of India of the mid

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and later periods of her ancient days, by their personal knowledge or actual contact—these brilliant arrays of savants of modern times have done through their piercing eyes and keen insight into the deep-laden mass of Indian literature in respect of her still earlier days. Their deep learning, spirit of devotion, power of research and, for most, a regardful sympathy unique in its nature, have made the name of India an object of esteem for others, and of a new inspiration for her own sons. India today is no longer a land "typically barbarian" (Dr Graves of Ohio) but a land of supremely high culture to which one can look for "peace of mind in this world and solace hereafter". We can not omit in this connection to make a short reference to the names of those great men to whose scholarly activities we owe really a great deal, and who made further investigation possible. Those who walk in the field, are easily guided by the lights derived from the labours of those eminent scholars.

*A brief outline of the history
of the science of Indian
Antiquity.*

The history of the science of the Antiquity of India also is too interesting to escape a short passing remark in this connection. Interest in the study of Ancient Indian literature (by the Europeans) began only about a century and a half ago when a number of Englishmen working as officers of the East India Company began the study of Sanskrit out of administrative necessity. The first amongst them to handle original Sanskrit was Charles Wilkins who, at the instigation of Warren Hastings (who had up till then had to depend on Indian Pandits for the interpretation of Indian Law-Book), had learnt a deal of Sanskrit in Benares and afterwards brought out a translation of the *Bhagavad-Gita* and the moral story, the *Hitopadesha*. When the necessity for direct access to Sanskrit language was being felt somewhat keenly, then it was that that gifted and versatile scholar who amongst his friends would

be regarded as the most enlightened of the sons of men came over to India: The Asiatic Society which Sir William Jones founded in 1784 marked a new era in the history of Antiquity and Philological enquiry of the world. The task next devolved on Henry Thomas Colebrook, another of the high officials of the East India Company, who amidst his multifarious responsible task, found time to collect, with a true spirit of research, an incomparable mass of Sanskrit manuscripts which now form the principal treasures of the India Office Library, and formed the first basis of investigation by later European scholars. The task if thitherto confined would not have served any great purpose; but the work begun by Sir W. Jones and his countrymen soon assumed a distinct shape at the hand of German scholars who were led to it with greater zeal and discerning power and with an unadulterated spirit of intellectual pursuit, that afterwards achieved wonderful results in the line of research and far surpassed those in the field of Egyptian hieroglyphics' or Babylonian 'cuneiforms.' It is not a matter of little curiosity to note that an incident of the great Napoleonic war led to the wide opening of the gate of ancient Indian literature to the continental scholars. We give the account in Prof Macdonell's lucid words:—

"Alexander Hamilton (1765-1824), an Englishman who had acquired a good knowledge of Sanskrit in India, happened to be passing through France on his way home in 1802. Hostilities breaking out afresh just then, a decree of Napoleon, directed against all Englishmen in the country, kept Hamilton a prisoner in Paris. During his long involuntary stay in that city, he taught Sanskrit to some French scholars, and especially, to the German romantic poet Friedrich Schlegel. One of the results of these studies was the publication by Schlegel of his work "On the Language and Wisdom of the Indians" (1808). This book produced nothing less than a revolution in the science of language by the

introduction of the comparative and the historical method. It led to the foundation of the science of comparative philology by Franz Bopp in his treatise on the conjugational system of Sanskrit in comparison with that of Greek, Latin, Persian and German (1816). Schlegel's work, moreover, aroused so much zeal for the study of Sanskrit in Germany that the vast progress made since his day in this branch of learning has been mainly due to the labours of his countrymen."—Pages 3-4 History of Sanskrit Literature.

To Schlegel India was a "land of exalted primitive wisdom," and ancient Indian religion and Indian poetry "replete with exuberant power and light in comparison with which even the noblest philosophy and poetry of Greece was but a feeble spark;" and 'the time from which the master-pieces of the Hindu dated appeared to him 'a distant, gigantic, primeval age of spiritual culture.' while Bopp in a more sober way, attempted to establish a prior fundamental relation of Sanskrit with the other ancient languages of the world, and thus laid the foundation of a new phase of world-history through the linguistic relation of races which became the pursuit of the next age. In the meanwhile interest of the western countries in Indian culture, religion and literature went on growing: newer materials were being brought in, newer lines of investigation opened, and never workers also appeared on the scene. In addition to the classical Sanskrit of the mid-ancient age of India, there was brought in view the archaic literature of the older Vedic Sanskrit on the one hand, and the later Pali and Prakrit which embodied the (sacred) literature of the Jainas and the Buddhists, on the other—an enormous literature on which to build up the cultural history of Hindustan. The task was seriously taken up by the sagacious Burnouf in France, the ingenuous Prinsep in India who devoted himself to the deciphering of the inscriptions (monuments) and coins, and the Norwegian Lassen who made Germany his home and who wrote in

German, for the first time, a systematic, volume, the "Hindu Antiquity." To these must also be added the names of Kuhn and Benfey, Max Muller, Weber and Roth in Germany and of Bohtlingk of St. Petersburg Academy, and quite a list that must be linked with the account of the achievement in the field of the researches on Indian Antiquity,

In our own land, too, we have had here a Rajendra Lal and there a Bhagwan Lal Indraji, a Romesh Chandra Dutta and a Sarat Chandra Das, Mahamahopadhyaya Shastri and the illustrious Sir Bhandarkar, to whose efforts we owe a great deal. A student of Ancient Indian History can not afford to miss any of the names whose resourceful spirit has contributed so much to the knowledge of the world. The result up till now achieved in the field of the history of ancient India has been wonderful and encouraging; but something more instructive and enlightening might be in stock of the future which, as Prof. Oldenburg hopes, will bring in the "explanation of the hitherto inexplicable phenomena, the transformation of that which is half known into that which is fully known." But let us now close up with it, and look back to the circumstances that led us to our humble pursuit.

The problem of a young graduate—how to best serve the cause of the country : that intensified through contact with some high-souled personage of the university.—The reader gives a tribute of appreciation to their memory.

The atmosphere of the land, at the time of which we were speaking, was most unsettled; its air blew violent and the soil was not cool. It was difficult for a young man just out from the college to decide which course to make a choice of. Study that was prescribed in the college course seemed to be dull, detested and insipid. The one dominant question that lay in the mind of young Bengal was—how to best serve the needs of the time, the cause

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of the Country. In the midst of the tumults and confusions of the time (following the Bengal Partition National movement), and with a mixed feeling of half-regret and half-encouragement, I was called to the circle of the University of Calcutta wherefrom I had the opportunity of cultivating the company of some high-souled friends and revered gentlemen. You will excuse me if I take a pause for a while and make reference to some of the persons to whom I owe a great deal for the direct and indirect influence they exerted in shaping the after course that I followed.

First and foremost I should mention the esteemed Dr. P. K. Ray who then created in me an eager desire for, and interest in, Education as a pursuit of life, as he said that the country, first of all, wanted a band of self-abnegating teachers. The late Mr. Hari Nath De, with his literary achievement and cultural ideal was an inspiration to every one who would come in contact with him ; to the utterly regrettable loss of the country, that extraordinary linguist, while still young in his literary endeavours, departed while his masterly efforts were directed to the 'rediscovery of ancient Buddhistic works lost in the original Sanskrit and now to be found only in Chinese and Tibetan versions.' Mr. Yamakami, the Reader and author of the thesis 'The Systems of Buddhistic Thought' was a noble soul in whom I found, for the first time by direct contact, how the foreigners have learnt to esteem India and the Indians in the light of their past glory. I may also mention here the well-known Sir Asutosh Mukherjee who was then just organising the University where the subject of Ancient Indian History and Culture for the first time, (later) obtained a recognition and found an important place in the curriculum of Post-graduate Study as an academic course. Every step which he then took and every measure he adopted was a matter of great interest to all who, were in contact with the university in those days. I should also mention the name of Dr. A. Suhrawardy whose very high scholarly temperament and patriotic

spirit bore then a great promise, but who now is feeling troubled by the 'vanity of pursuit' at the Calcutta High Court as he describes his legal practice there to be. Last but not least I should also name my learned friend from Behar, Babu Jaganath Prasad Panday. M. A. B. L. whose high attainment in Indian Philosophy made him a real 'Darsana Keshari'; to him I am largely indebted for my first interest in that master-piece of human culture which forms the basis of all the literary and cultural treasure of India. I could mention quite a number of other friends and gentlemen to whom I am personally indebted on various grounds; but I think I have already tired you with this some-what tedious account. But I make mention of these because I believe that we can learn more through the study of men than through the study of books.

The idea ushers for the first time that there lies a way for the regeneration of the country (entirely its own) in her cultural revival and spiritual triumph for which there were immense resources in the ancient lore.

Under such circumstances it appeared for the first time to me, that there lay a way for the regeneration of the country entirely its own : It was her cultural revival and spiritual triumph for which there were immense resources in the ancient lore. Demand for the same, by the turn of events, also seemed to be pressing.

I remember now an incident that took place one day at that time as a matter of table talk. Sir Valentine Chirole's book, "The Indian Unrest," was just out and indented from England. A copy of it was on the table. We looked over the title-page and through some pages of its contents. There were also some books on Indian Philosophy and Indian Literature on the shelves all around close by. Spontaneously there came out the remarks "—here is the petty thing, Indian Unrest"; but all around there are the treasures of 'Indian

Rest—eternal. It is only if they could have a taste of them! The matter was a talk amongst us for many days; and later it formed a subject of an elaborate conversation with Mr. Yamakami's preceptor the Lord Abbot of a Buddhistic church at Tokyo, then on visit to Calcutta, to which he seemed to give his sincere approval.

That growing clearer through later study of great authors and teachers of modern age.

The matter was still a passing impression for the time being. But later I drew the lesson on the same from the teachings of some of our great teachers—men who have proved massive pillars to keep erect the high roofs of our spiritual ideal on the sandy and shaky ground of modern times. One can easily realise how much the coming regeneration of this land is due to the life and teachings of the great spiritual leaders of the country in her dire days. Through their efforts the genius of the old culture of India had long been operating on the hearts of our modern men, as their mind and body lay subdued under other influences. In the midst of all their miseries and distresses, the same spirit has ever been predominant—India in the days of her decline is *more a land of Sankara, and Ramanuja, Nanaka, Kavira, Tukaram and Chaitanya, Dayananda, Rammohan and Ramkrishna-Vivekananda, and lastly, of M. Gandhi and Aravinda, than of Mahmud and Baktiar, Altamas, Baber and Akbar or Aurangazeb, and even of Shivaji, Pratap Aditya, Hyder Ali and Ranjit, Clive, Dalhousie O'Dwayer, Dyer and Curzon or of Bentink Ripon, Montague and Chemsford.*

And that led to a more specialised study of the subject.

These were the circumstances that led me to a sort of specialised study of Indian Philosophy and Indian History and Culture, which laterly won for me the last University Degrees, and Professorships in some Colleges. Things might get on in a way which otherwise might be called definite and final. And every one knows

how, except in exceptional instances, the life of a Professor under modern circumstances in this country turns mechanical and stagnant.

*Effect of the recent national movement on the same ideal : How it could be realised in educational field
—the Problem.*

But yet a change was in view—a change that arose out of the movement that has passed through the length and breadth of the land and has shaken the roots of many things that were regarded settled and permanent. Every one knows how fatally the Educational institutions of this country, if not *all in form, in spirit*, have been affected by the recent national movement. To me it also served as a reminder of the old ideal, concealed so long under the uproars of the noise and number of the boys in the college premises. The atmosphere seemed cool and congenial and everything native to the old ideal. It was no time to measure one's merit or worthiness for the call; still a ready response was delayed for a time with a view to have some suitable occasion which being had, it was the educational aspect of the thing that naturally offered the greatest allurement. Every one knows the difficulties, due specially to the peculiar mentality of the people, under which national Education recently started has been suffering. Still to it the old ideal found itself quite in conformity; and it continued to operate as far as it could be managed, and would have perhaps so continued for a period indefinite. It was at such a time that this humble servant was invited by the Gurukula.

Call to Gurukula where the ideal takes a concrete shape in the subject and finds a congenial ground for execution, the ideal identified with that of the Gurukula in the estimate of the Reader.

The name was a charm to me for years, teh 'subject declare d' occasioned

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a thorough revival of the past course of pursuit, (and its constitution has had the wide reputation which also accorded to the same.) And in my reasoned estimate of the Gurukula I found almost an identity of the long cherished ideal of which I have been giving you so long and tedious an account.

So to define the standpoint which I have to follow in this course of lectures, I have had to give out an ideal ; and to find that out I have, at last, been led to the Gurukula. So to me I shall be committing no serious wrongs if I say that the Gurukul is the stand-point that I mean to follow. If I have understood it well, the Gurukula with its back at the gateway to the high abode of holiness, with its face, along the sacred stream of the name that has become the symbol of holiness, turned to the remotest point of the land equally holy, and with its two arms directed right and left to the remote sides of this holy place, and, above all with the loftiest ideal in its view) is a living illustration of the fact that the land of the Aryas has a genius of its culture and civilization, pure and holy, that has made it what it is from time immemorial, through the days of power and prosperity, despair and distress—still a factor of permanency in the history of the world. And with the loftiest ideals of the ancient thoughts of India in view, it is a standing assurance, to the people of this land, of the restoration of their ancient virtues—of that “manly and elevated character which alone can achieve a future for the country commensurate with its glorious past.”

Indeed with the lessons of schools and conditions through which I happen to have passed, I think it a great privilege to be in a position to pursue the course in the congenial field of the Gurukula. I find here quite an agreement between the goal and the field—the end and the means. I should also think that the donor of the funds that created this post could not have selected a better and fitter place of gift on the account of Ancient Culture of the land under the modern circumstances. Every nook and corner of the place is a

recess for the culture of India, the very atmosphere breathes the air of its breath, and every inmate of the institute is a worthier repository than anybody else outside. I think I could strip myself of the traces of the past trainings and begin a life afresh under its benign influence and prove a worthier person to bear the banner of the glorious past of the mother-land that has been entrusted along with the post.

II.

THE SUBJECT MATTER.

Some inherent difficulties which are bound to be in such a subject.

Now a few words about the subject matter, we have to deal with. Inspite of the wonderful results obtained in the fields of historical knowledge of ancient India, by modern scholarship, it must be admitted that yet there remains much to be explained of ‘hitherto inexplicable phenomena’ and to be fully known’ of what is only ‘half known., And there are some very inherent difficulties. To the same standard of modern (scientific) research, philology and anthropology have brought forth the result whereby a distinct stock of human race—the forefathers of many a civilised nations of the modern world—once occupied a space in the midst of a continent (central Asiatic region is said to have been the original home of the Aryans), which Geology finds then to be a region of a second Mediterranean ocean The institution of caste, an important factor in the ethnology of India, has been held by some to be an antecedent condition of the reactionary rise of the Buddhistic religion, while the same with ‘its exclusive rights of connubium and commensality’ has been taken by others to be only an after-effect of the rise of Buddhism adopted by the Brahmins as a protective measure. By the very nature any investigation into the past history of a country or nation is bound to meet with some difficulties and can hardly be complete, The difficulties are due to various grounds. Let us endeavour to trace a few of these.

*The difficulties :—(i) Physical. (ii) Psychological and metaphysical,
(iii) Practical.*

First of all we may note what may be called the *physical difficulties*. These are the obstacles we find in the way of ascertaining the facts of historical investigation owing to some physical reasons, such as remoteness of time, scantiness or absence of evidence, complexity of events and the like. Then there are *Psychological* or *metaphysical* difficulties whereby one may be led by bias or sentiment in passing judgment in favour of or against some historical event; or by the degree of certainty or uncertainty with regard to the nature of the truth that is sought as underlying the facts investigated. And lastly, there sometimes occur some difficulties which may be called *practical* (utilitarianistic) difficulties by which one is apt to attend or know, with a greater or lesser degree of interest, a fact according as it may serve more or less practical purposes. (We shall refer to it more in a later comment).

To which must also be added the difficulties relating to object, style and method adopted.

Along with these there might also be considered three other factors of historical study and historical investigation, which involve some difficult points. These are three (i) the object (ii) the style and (iii) the method. Some of these will be found to imply or merge in one another.

Detailed account of each.

Due caution has to be maintained in regard to these.

(i) The object of the study of history may be three-fold (a) sentimental (b) scientific and (3) practical. The study of one's own natural history or of one's own ancient History is apt to be tempered sometimes on *sentimental* grounds. Some of our own historians handling the ancient history of India have been found to be labouring under this difficulty. Due safeguard should be

maintained against any such leaning under the influence of feeling. Accumulation of facts and their due interpretation for their own sake is the object of a scientific investigation of History. History may also be studied and pursued for some practical purpose, as we shall see later on (see back also.)

(ii) Style employed in Historical literature has been mainly of two kinds:— (a) artistic and (b) scientific. Each of these has its own peculiar worth with respect to the subject to which they are employed. History as a matter of narration and literary presentation lies in the field of art, and as an investigation of facts is in the department of science. In its beginning with the old Ionians (6th century B. C.) who are said to have originated it, History was really a scientific research. And Herodotus, the father of Greek History was himself as much a scientific explorer as a narrator of events (*History= Historie*). From the time of Aristotle, History took a definite shape as being a 'literary (artistic) product' as distinct from 'enquiry into facts.' Thenceforth to the advent of the modern times, History was a form of literature (*Historia*). The modern scientific spirit has once more turned to the conception of scientific research. Under influence of the stress laid on the artistic or literary side, many have often jeopardised the cause of History as a science. This was generally the case when poetry was the medium of historical facts (Thucydides) as in the sagas or epos (epics) of ancient nations. A bard would naturally exaggerate or distort the stories, (iii) Then there is the more important question relating to the method. Methods in general are mainly of two kinds—Inductive or observational and deductive or introspective. Modern sciences are essentially on observational basis; so must be History when a scientific value is claimed for it. 'A Historian,' says Mr. Freeman, 'must toil at the patient study of contemporary texts; of contemporary monuments, which to some

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minds seems a good deal less taking than the piling together of theories to be upset the next day by some other theory. He must work to lay the foundation ; when the foundation is once laid on the rock of original research, a superstructure may be raised on it which may live through a good many blasts and storms of controversy. But he who without a foundation builds on the sands of theory, he who rushes at a difficult and controversial period with no knowledge of the periods that went before it or of the periods that came after it, he who conceives of events, not as they are reported by those who saw them, but as may be convenient for some favourite doctrine—against such we may hardly raise a voice of warning.—The house built on this sand will presently crumble of itself without needing any special blasts and storms to sweep it away."

All this is well and good. And no one in modern days can afford to lose sight of the much valued progress due to the observational methods in different sciences. So of the scientific purpose and style in the treatment of a subject as opposed to the sentimental and mere artistical. And yet each of the independent claimants may have their relative value ; and none can claim the absolute. The best recognised methods (on the observational line) in the most positive department of investigation have been found to reach a limit and boundary. Farther to reach, there is the recourse to *theories* and ideas. Even J. S. Mill the greatest exponent of modern observational (experimental) system, has at last had to seek an alliance with the deductive or hypothetical method "in explaining the complex features of nature ; while Prof. Jevon's views on the Principles of science, are replete with the preponderance of the hypothetical or deductive methods." But we have no reason here to enter into an academic or controversial discourse Our object is only to determine what method we can best employ in the treatment of the subject taken up in view of the various difficulties and opposite tendencies that offer themselves.

The method to be employed : History deals with the most complex of affairs and has an ever-growing wide scope. The best treatment of History is that of Universal History—The method employed in it should be a combination of both, Observational and Introspective as in the other complex departments of Science.

History deals with the *most complex* and the *most delicate* of the affairs of human investigation ; and it forms the basis of some other complex departments such as sociology and political science. All these are at the highest level in the evolutional scale, and as such are beset with special circumstances and difficulties. So it demands some special consideration in treatment.

History pre-eminently requires *an accuracy of truth* in relation to events of human affairs. And no matter is more likely to be knowable to human mind than affairs of man's work and life, the subject matter of History. But this advantage in respect of the acquisition of truth owing to the commensurability of the knower and the known, is more than compensated, in the adverse, by the circumstances which stand in the way—one more of which 'in addition to those already given' may be counted in the fact that History after all is in a process of progressive growth along with its subject matter—the account of human race which is still in the making. There can of course be individual Histories of the persons or of the races ; so there have been. But these are mere chapters of a book which is not yet complete. They may also be taken as the several factors of a riddle which when completely known gives to them their real meaning. Unless the whole is taken in view, the individual factors or chapters can make no adequate approach to truth and light their real meaning.

Our ancient writers and thinkers of India seem to have taken in consideration this permanent inadequacy and shortcoming in the nature of History. So 'unless we believe with Mr. Tod and per-

sons of his mind that the ancient Indians, like the other branches of literature, had also their systems of History which have been destroyed partly by influence of climate and partly by the incursions of foreign invaders' *there was a lack of History amongst them in the modern sense of it*, which fact has been attributed by some to the Hindu bent of mind which might altogether neglect the events of the world which to them are mere deviation or digression from the ultimate Reality, the supreme object of their pursuit, and so not desirable and worth cultivating.

History in its current use, of course, does not claim any ultimate or complete truth; but remains, contented with being merely a system of what may be called 'possible truth'. Specialised attempts in building up such systems of possible truths in diverse line when properly synthesised may, however, help in building up systems of broader truths. Two such wider systems of History may be conceived :—(1) The mere summation of the separate system of History which would be like an outline of the History of the world as we find in the library; or (2) A *Universal History* based on some fundamental principle of human affairs taken as a whole—all ages, countries and nations as far as ascertainable. It is not a mere summation of all the special histories and facts of Histories, but is one in which every factor of History finds its real place and explanation. Rise and fall of nations, formation and decline of empires, exhibition of arts and architecture, literary and spiritual culture of the different ages and places of the world are the broad factors linked in that universal scheme, probably in an organic relation. Each factor is to be held as bearing its value and worth in proportion to its place and permanent contribution to that world system, in as much as the whole scheme is to be interpreted in terms of the contributions they make under different shades of value. Thus from the palaeolithic lives of the tribes (as the theory runs) or from the still

earlier life of the savages to the (modern) civilisation of a world-union through common ideas and common science, there have been innumerable cycles of events and thoughts of different kinds, durations, and worths. The task of History, viewed in this light, is to determine the place and worth of each event or group of events in the whole range of human affairs.

III.

HISTORY OF INDIA—WHAT :

Of all other Histories, History of India has the best claim for a Universal History. It may be regarded as the cardinal line in that.

The *History of India* is pre-eminently a history of culture and that best represented in her past. As such it can best be treated as a chief chapter of the *Universal History*. Indian culture taking its root in the Vedas, the earliest record modern research could find in the history of the world, and devolving in and developing through the later series of Indian literatures, philosophies, religions, arts, sciences, politics and morals represents a historical link of the remote past and the present which is unique in the world. Nowhere else in the history of the world, in no other land or nation, is there observed such a lasting feature of human development. This it is that has made the name of Arya (Hindu) and that of his land (Hindusthan) a permanent factor. And if one is led to ask why it is so, and that in the face of uncommon pressures and uncommon oppositions that have been the lot of very few nations to meet—why it is that reactionary movements arising in his own soil and in his own neighbourhood (Budhism, Jainism and numerous others) could do not really harm but had to yield—why it is that the most advanced of early westerners (Greeks), with their loftiest culture at the back and the mightiest conqueror at the head, could leave nothing of influence or interest to him—why it is that the mighty hordes of the Sakas, Scythians and the Huns had to lose their existence and merge in his

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society—and why it is that the numberless raids and irreparable damages of the swords of Islam could leave no lasting marks in his interior inspite of the huge losses of life and property, he will find the answer in one word—it is owing to the superior culture of the land and the spiritual genius that forms its basis.

And yet greater dangers were in stock : slowly and stealthily, the western nations of modern centuries with, at their disposal, the apparatus of modern science and an abnormal commercial zeal and avarice, have entered into the different fields of the country and won a mastery over it. But would any one believe that the mastery is complete? Times rather seem favourable and marks already visible that the Hindu spirit will soon assert itself and maintain its ground—perhaps with victory over these new forces of modern civilization, and give it a truly beneficial int.

May we also hope in the investigation of world's History that the spirituality that forms the basis of Hindu cultural life and the Eternal Truth which is the goal of its pursuit will be brought to bear upon the determination of the place and purpose of the facts and groups of facts not only of the History of India but of all nations and countries in general! History viewed in this light will not only be 'past politics', as Mr. Freeman has got the definition of it; but all politics of the world will be found as being mere minor factors of it. So all facts of the other fields of humanity. It is not, however, that the labours of modern research in specialised directions and the value of their products will, in any way, be regarded in lesser esteem on account of this ; they will rather be esteemed as more valuable as being intended for a higher purpose and more exalted end. The superstructure of the whole edifice is rather to be based on their scientific bases. It is such a Universal History which is claimed for the cultural History of India.

Universal History necessitated also by the modern circumstances : Hence the additional importance of Indian cultural History.

But the name Universal is not strange in the history of History. Not to speak, at present, of the elements of universality that are insinuated in the Puranas and like literature of this country, from the very early days of the Christian Church, its tendency has been to show how the world had followed a divine plan in its long preparation for the life of Christ and for the coming of the millennium. Augustine's 'City of God' is an attempt to show that the Roman Empire, the last general form of the earthly city, gave way slowly to the heavenly. The mathematical demonstration of its truth was taken over by his disciple Paulus Orosius who wrote, 'seven Books of History against the Pagans. Nius, Medes, Babylon, Rome, Macedon, Carthage—all were treated thus as illustration of the one world-story that it had improved since the coming of Christ. 'Livy, Caesar Tacitus and Suetonius are plundered for the study of horrors.' The Goths in Spain shine by contrast with the Pagan heroes, and through the confusion of the German invasions one was asked to look forward to Christiandom.

This conception of a 'World-History' was marred in the mediaeval writings which lost sight of truly historical perspective and are dominated by the idea of miracles. The next age of Renaissance is marked with a humanistic spirit, but there is no definite improvement in the line of History which only became subservient to the course of literature and the classics. But it made further progress possible which took a marked shape in Germany, and even in France, Italy and England till the 18th century. The scheme of World History was taken up by Carlyle and Hegel in those days on a spiritualistic basis; and by Buckle and Karl Marx on the physical and economic. A complete change has taken place in the perspective of History since the 19th century : machines of research have been set going in

perfected forms and organised attempts were being made by learned societies with increased sources available at their disposal—archaeological and literary. Any hope built on the resources of the modern scientific research for a Universal history on scientific basis may not be altogether visionary.

Recent events and the present political and economic conditions of the world rather seem to have enhanced the necessity of a comprehensive study of the stories of races of the world, and of the lessons they bear for the good of mankind. The terrible experience of the last European war seems to have produced a great change in the out-look of many upon the affairs of the world; and political things hitherto lightly considered are now being gravely taken in view ; and we are told by the author of the recent publication of a world History (Mr. H. G. Wells—The Outline of History) that 'to a certain small number of men and women the attainment of a world peace has become the supreme work of life, has become a religious self-devotion. To a much greater number it has become at least a ruling motive.' And it has also been said that many such people now are seeking ways of working for the great end, or they are already working for the great end, by pen and persuasion, in schools and colleges and books, and in the high ways and by-ways of public life. Perhaps now most human beings in the world are well disposed towards such efforts, but rather confusedly disposed; they are without any clear sense of what must be done and what ought to be prevented, that human solidarity (for peace) may be advanced. A world-wide faith and hope was placed in President Wilson and his 'League of Nations.' But the 'League' to most thinking men has been little better than a failure; and few at the present time feel any great enthusiasm for it. The League at best has been a league of Governments and States, and a new contrivance for defence and offence, but no remedy the world is in need of. What the world is in need of is no such league

but a League of world-men for World peace based on some fundamental principle of World-humanity ; and a World History based on some World-principle and well understood is to be the Code to regulate such a World-league. Well has even hoped with Roger Bacon that 'it will be based upon a common world religion very much simplified and universalised and better understood. This will not be Christianity or Islam nor Buddhism nor any such special form of religion, but religion itself pure and undefiled—the Eightfold Way, the Kingdom of Heaven, (Universal) Brotherhood, Creative Service, and Self-forgetfulness.'—H. G. Wells.)

If these words echo the cravings of a heart and earnest desire, then the lessons of the ancient History of India could, without hesitation, be referred. But unfortunately the author who concludes his large-sized volume of World History of over six hundred pages of close printing in double columns has had hardly any observation on the immense treasures that lie in the (religion and) culture of India that embodies these very principles, and much more defined and demonstrated in ways rarely found in any other system—things that have sustained the land of their birth as a unique factor throughout the history of the world, and led her destiny through ceaseless changes of political and social affairs in unique peace and rest and perhaps with a lesson of the same for the rest of the world.

IV

THE PRACTICAL UTILITY OF THE STUDY OF ANCIENT INDIAN HISTORY.

Ancient Indian History so far as it exists is mainly practical in aims

*Present demand for the study of History from practical points of view
Additional ground for it in case of the study of Ancient Indian History.*

One point more, and we have done with our present consideration of the treatment of Ancient Indian History. There

is a feeling almost universal that the study of History, as also of other speculative sciences, as a part of academic and general culture, is now in an unpopular condition. The growing narrowness in the number of students that take up the subject in the combination at their course also illustrates the same thing. One main cause of this deplorable condition of these studies is the want of *practical utility* in the object of their study. The present age is an age of intense competition in the fields of living. Everything is judged by the practical value and utility it brings in. Unless the study of History is brought in more to bear upon the practical needs of life,—, If" as Dr. Seeley has expressed, "they (historical facts) lead to no great truths having at the same time scientific generality and momentous practical bearings, then history is but an amusement and will scarcely hold its own in the conflict of studies."

Our old historians knew this well in their own way. So in the *Itihas* of yore—in the Puranas, Gathas and the Epics and other fragments of literature that contain elements of History, we find practical aim and practical utility predominant in their teachings, an efficacious consequence of which is exhibited still in our social frame and individual life that are under the influence of these. Their object was not to deal with 'reigns and pedigrees and campaigns' merely and for their own sake; nor did they care much for dates and chronology for want of which they are being so much accused by modern critics. They looked through facts of humanity sometimes in their relation to cosmogony and world-history, and drew out principles, however obscure to modern eyes, that went a great way to the framing of the basis of a 'really binding culture' of a nation of the longest standing.

Indeed a better purview of History than at present mostly in vogue, on a more humanitarian basis is being hungered for by many, and that necessitated more by the modern circumstances. It was

the same Dr. Seeley who, alarmed by the growing power and political customs of England, most emphatically defines it as a maxim that "History should pursue a practical object"—that "it should not merely gratify the reader's curiosity about the past, but modify his view of the present and his forecast of the future." In the more moderate conception of a living historian (V. Smith. Oxford edition introduction XXIII)—"The value and interest of History depend largely on the degree in which the present is illuminated by the past." The ideal of the study of History from this point of view, is that every event in the life of a nation or person is to be viewed in reference to the past and interpreted in the light of it, and be found to give its value for the present, and lessons for the future.

If these remarks be applicable in regard to England or any other country or nations (of the modern world) with their present affluence and recent development, how much more ought these to be applied to the case of India with the long stories of her past events and especially her past glory! Generally to speak we are prone to take up the study of our past History more on sentimental grounds; and the interest of modern research is more scientific. But as a matter of fact, we may take up the study of it and utilise it much more to our *practical purpose*. It is all the more necessary and easier because we are already more or less closely in touch with it in our practical life—however unconsciously. Our historians, as other teachers of yore, had this practical purpose prominently in view—they narrated such incidents only which had any practical utility and morals for the people, in the chief. It is one of the reasons why there is a scantiness of history, in our ancient literature in the modern sense of the term. Our ancient polity also is not a system of mere principles and theories but of practical injunctions or workable rules, in the main, aiming at some definite

object of life or society—be that terrestrial or eternal. And if they have exaggerated things or created stories by imagination—a charge in some cases brought to their doors—it was not in order to foster their fancy or magnify events for their own sake, but to add greater utility to the purpose of study. Again the study of the ancient History of India bears some additional value. The study of the antiquity of most countries is a matter of mere intellectual satisfaction to those who are interested in it; They have lost their link of the past with the present, and, in most cases, it has devolved on people who are quite foreign to them. But Indian antiquity is still a matter of living interest to many and is altogether a necessity to its present inhabitants. There is a unique connection between her past and the present; the light and culture of the past is still stretching to the present inhabitants so much so that they live more a life of the past than of the present—and there they find their real life! And nothing can be more practical than life.

V

AN OUTLINE OF THE SCHEME UNDERTAKEN,

Meaning of the term Research : two courses of lectures suggested : (i) one on original research, (ii) properly the other on subject of general interest : conclusion : an earnest hope in Gurukula students.

But we have drawn the matter a long way in laying the ideal and practical value of the study of Ancient Indian History which have led us to the present undertaking. What we mean to say in the main by these is presented to you in the shape of synopsis in separate papers which we may regard as the revision of the thing. I think I should now conclude by giving an outline of the way in which we intend to deal with the subject as a matter of academic discourse so far as it can be given out at present.

It is indeed not secure to ascertain any fixed line of work in the present undertaking. In all fields it is not possible 'to make to order' in definite limit of time. The whole thing is more a matter of internal development than of outward requirements. And there are some inherent obstacles in relation to historical studies and historical researches which may defer a subject for an indefinite period, or leave a matter half, done undone for ever. Responsibility in dealing with History is also greater than that in other sciences—in the one there is no check, the field is wide and indefinite and there is free scope for imagination; while in the other cases the field is definite and the method guided by rules of Logic. Well has been said that "No where else is half-knowledge so likely to be mistaken for real knowledge"—'the seeming ease of the subject, its freedom from technicalities, the way in which it connects itself with all other studies and pursuits, the necessity which is laid on all of learning..... make it subject to sports as it were.'

The term Research again admits of a variation of senses. But that in the field of History, in particular, has to be taken in the sense of an *Investigation based on original sources of knowledge*. Against these there are some permanent bars in many departments. Local research may prove a matter of great consequence. And although one cannot underrate the value of the study of original authority, yet it must not be said that no knowledge of historical value can be counted unless it comes straight from the same, for in that case the task of historical enquiry would be next to impossible. The field of History here is so wide, and even one single section of it is so vast, that no one can hope to master it in original authorities for any period. So for most cases the original authorities are to be reached through secondary writings. Still some original writings must be thoroughly gone through; for this gives a habit of mind which is of great value for study in general.

With these circumstances in view to which must be added the potent factor of our personal shortcomings which are of various kinds, we propose, for the present, two courses of lectures to be delivered from time to time. (i) one on the minute line of research to be based on original authority and writings on some definite subject as far as permitted. This will be chiefly meant for the special students of History and those whom I would like to find working with me in the line; and (ii) the other on subjects of more general nature to be delivered, written or spoken, to all students who are interested in History and have not necessarily given themselves to special study of it. The

work will be deemed worth undertaking, and its object fulfilled, if a number of the students of the Gurukula find it helpful to persuade them to take to the noble task of counting the accumulated treasures of their past ages which bear the marks of an incomparable glory to them and that of a satiating hope for others. It is they who, by their training and tradition and with the lofty ideal of their institution, are fitted for the work more than any body else. It will be a pursuit sought for its own sake and for the humanity. It will be a pursuit of knowledge and a pursuit of truth which must be calculated to be of better use and of higher value than high salary or professional renown.

CONTEMPORARY THOUGHT REVIEWED

VALUE OF HONEY.

FOOD AND MEDICINE.

Those acquainted with Arya Shastras may be aware of the frequent prescription of honey as sacred food to be taken in the midst of Sanskaras. From the following quotations from a contribution by Dr. P. M. Raju to *The Hindu* for May 1923, they will understand the reason of the recommendation:—

Few people do really know or believe the fact that honey as an article of food is very valuable and nutritive, and can be taken in different forms and ways. In England, America, France and Germany this sweet substance is getting more and more popular in the daily use as a nourishing article of food with the people. The ancients in India knew its values, advocated and used it both as food and medicine more freely than the present generations. It is a fact to be remembered that before the introduction of sugar, honey was wholly used in the

place of sugar for all purposes—domestic, culinary and commercial—as a sweetening agent. But sugar does not possess such valuable properties as honey as an article of food. It should be noted that when honey is consumed the whole of it is usually assimilated by the human system as hardly any digestion is needed, there being little or no residue in it. And it is a fact that the ordinary sugar requires what is called "inverting" before it can be absorbed into the system; but honey calls for no tax or labour on the digestive organs, it being partly digested already by the bees themselves.

Honey is therefore really valuable not only for children, but also for adults who are, for certain individual or constitutional reasons, unable to take ordinary sugar. It will be thus seen that the natural honey in its pure state is a very useful factor for domestic use and in the kitchen in daily use as a wholesome food where it can very well take the place of artificial sugar in the making of many dishes; and for the preservation of fruits, honey is particularly serviceable, it being superior to sugar or syrup,

It may be carefully noted here as a precautionary method that honey should never be left exposed to light and air as it is hydroscopic in nature and readily absorbs moisture from the air and thus ferments and becomes sour later on, even if it is covered afterwards. So honey must be kept in glass bottles or jars to keep well for a long time; and it is best kept in a dry, cool dark room. Pure honey placed in a clean fruit jar and gradually heated to a temperature of 160 degrees and sealed up will remain in liquid form.

HONEY AS MEDICINE

As a medicine honey is in all ages and countries highly recommended and employed in manifold ways both by Oriental and Occidental physicians in various complaints such as Coughs, Colds, Asthma and throat and chest suffocations and also for constipation and allied stomach troubles and disorders. Honey at once loosens, purges and strengthens the system.

In Bronchitis, honey, simple and pure, gives more relief by frequently tasting or sipping it than is obtained from anything else. Honey is a good mild natural laxative and demulcent. Honey mixed with borax is an old serviceable household remedy for children in cases of Thrush or ulceration in the mouth or in fauces and in many little complaints and stomach disturbances and indigestion. Honey ointment is more efficacious, speedy and simple in treating boils than any other ointment. An ointment called "Ceromel" is prepared by melting together an ounce of yellow wax and 4 ounces of clarified honey on gentle heat or fire.

The ancient Gauls or Germans, besides several other sweets, have been manufacturing certain kinds of Ale, chief of which was known as Mead and they largely used this honey-wine for purifying nourishing and strengthening their system in the olden times; and the Gauls were also making and using a delicious beverage called "Hydromul" which was a sacred drink of

the Gods. Tacitus, tells us that the old Germans ascribe their strength and long life to this remarkable natural beverage.

Internally it is a beneficial habit every morning, to take pure honey mixed with pure water in the proportion of 1 to 4. For Dyspeptics too honey has been found of much service and benefit. It is also used as a good remedy for sleeplessness i. e., two teaspoonfuls of pure honey mixed in a glass of cool water and drunk. Even small tumours in the stomach are speedily healed by its use.

A distinguished modern authority, Dr. Taylor wrote recently in the British Medical Journal, that remarkable results have been obtained in Influenza cases by the use of Honey mixed with equal part of Tincture of Iodine; i. e., two or three drops of the honey-Iodine mixture, placed on the tongue every 2 or 3 hours or even more frequently. Honey simple and pure, at the present day is also often used by the Western educated medical men as a cure for Scorpion and other poisonous insect stings with good success.

It is asserted that inflammation and congestion of the lungs followed by unconsciousness were cured by eating honey at all times i. e. throughout day and night until 10 lbs. were consumed. A German by name Her Carl Gaiter was at the verge of grave, and was restored to life and perfect health by continual use of honey. Even consumption, strange as it may seem, is asserted to have been cured by honey treatment. In olden days it was used as a means to prolong life; and it is said to be an excellent remedy in diseases of the Bladder and Kidneys.

There are some good old recipes such as honey cough syrups; honey salves and balsam of honey for Asthma, croupes and Bronchitis, Honey wash for the sore eyes; honey gargle for sore-throat etc. Honey lotion is a splendid and safe gargle for public speakers to clear their voice.

Now granting all these prescriptions are good and effective it may naturally be

questioned what is there so much about honey that is absent in sugar, and which brings about such apparently remarkable results? There is no doubt that Formic acid secreted by the discriminative Bee and contained in the honey for its preservation is beneficial both to the stomach and liver.

Besides the Formic acid, wild honey usually contains a small, a infinitesimal quantity of Citric Acid, Tartaric, Malic, Gallic, Tamic, Hydrochloric, (prussic) Oxalic and Myronic acid. Also Quinine, Morphine, Strychnine, Atropine, Solanine, Veratrine, Perine and Theine and Caffeine etc., all then being collected by the wise Bee from numerous and various kinds of blossoms and flowers. Honey, further, consists also of gummy waxy, colouring and essential odorous oils with a certain small quantity of mineral matter.

Herein is a beautiful provision of Nature or of All-wise Creator exemplified in the minute quantities of antidotal mixing of medicinal properties and juices gathered by the intelligent bee, and so mixed in its tiny store-houses, that even strong doses are rendered innocuous and harmless quite unlike our artificial mixtures and draughts prepared by the chemists and druggists, which are often injurious and risky, if not dangerous.

Hence it will be seen that Honey with its numerous and varied powerful medicinal agents has the remedial virtue of restoring to normal health disordered and diseased vital functions of the body.

INDIAN ART.

In the course of an interview Dr. Stella Kramrisch, who while in Austria, made a regular student's study of Indian Art, and now in Dr. Tagore's Shantiniketan, has further opportunities of developing her love for, and mastery of, it, is reported to have said :—

I interrogated her as to what she thought was the special characteristic of the arts and architecture of India as compared with

those of the West and of the Far East. She proceeded "The expression 'dynamic form, which I used a moment ago, may suggest that which is unique in Indian Art. For in the East, for instance, we see the massive structure of great temples and great sculpture stabilised in firm harmony. We see, on the other hand, the extreme possibility which European Art reached in the Gothic cathedrals. There the volume is subdued and almost abolished. In any case, the two poles of artistic visualisation are given by emphasis of the material and surrender to aesthetic harmony, or conquest of the material and its surrender to a supernatural idea. These two possibilities are static, and architecture is therefore considered the leading art in the West. If on the other hand, we look to the extreme East, architecture loses all its weight and frail perishable buildings, do not express anything beyond a subtle mood of living. Sculpture too stands in the back-ground. While painting being of a less concrete order than the two formal disciplines, is obedient to the subtlety of brush stroke, and pen, and immediately handwriting of inner experience, and therefore merely dynamic. In this respect, Indian art links East and West. Architecture there is the leading art just as in the West, but who can decide where architecture ends and sculpture begins, where sculpture comes to an end and painting starts from. In fact, these classifications do not apply to the Indian genius who rises above and identifies himself at the same time with the material at his disposal, so that architecture becomes one tremendous monumental piece of sculpture. In which the single blastic parts and figures appear as limbs of one body who at times takes the lines in colouring its entire surface with a jungle of painted scenes. Such is the structure of every Indian temple, and in this way the wall paintings of Ajanta must be understood."

"How do you explain the fact," I asked "that the Bengal School has failed to

strike the imagination of Indians to the extent that it fully deserves?"

She feelingly made reply :—

" These qualities are the reason why the Bengal School as a whole has failed to strike the imagination of modern Indians. For it must be admitted that most of them have lost, or wish to ignore that which is their true Indian inheritance. A badly digested and assimilated western civilization troubles them to such an extent that they get blinded with regard to everything which has the faintest scent of Indianness about it. It is the fault of the semi-educated Indian public, far more than of the groping Bengal artists, that they can not come to a mutual understanding."

Lastly, I put her the question: " Do you see signs of any coming great Indian

Renaissance comparable to the mediaeval classical Renaissance in Europe, at present ?"

She hesitated for a moment obviously because of the futilities of prophecy in what is after all a speculation, and then replied, " I do not think that an Indian Renaissance is possible at the present moment; for things in India do not take such rapid turns with which we are so familiar in the West. Indian things move in a different line and different measure. The currents are there slower and deeper. Bengal art is one of those currents or symptoms. Others, which have not yet received a name, are slowly undermining the deadweight of imported goods and decayed use. They have built up the new land where Indian art is growing once more into fresh fruits."

EDITORIAL REFLECTIONS.

CHRISTIANISED HINDUISM AND MOHAMMEDANISM.

In the course of an interview, an account of which is published in *Zion's Herald*, Bishop Fred. B. Fisher is reported to have said:—

The big reform movements in Hinduism, Mohammedanism, and Buddhism, everywhere to be found in India, are part and parcel of the Christianizing process.

" From the Roof of the World to the Indian Ocean this new awakening of the old dead faiths is evident. We hear a great deal about 'modern Hinduism,' 'modern Mohammedanism,' which are, however, contradictions in terms. To modernize Hinduism and Mohammedanism is to destroy them as they have heretofore existed. The word of Jesus Christ has done that. The ideals and ethics of the Nazarene are

the big moving forces in the modernization of Indian religions, which are taking them over unto themselves, incorporating the principles of Jesus into their own beliefs. The Christian competition can be met in no other way. The East must assimilate Christianity or be assimilated by it. It is one and the same thing in result. And by a series of reformations the great religions of the East will in time leave off the shells of idolatry, superstition, immorality, and caste, and follow Christ—in their own Oriental way.

" It is a truism to say that Christianity does not destroy nationality. And it is the only religion that can stand the advance of knowledge and the revelations of science. It may change certain of its forms and expressions to meet new conditions, but its fundamental truths remain for ever. This cannot be said of the other great religions of the world that are in

India. To avoid destruction, they must take over Christian principles. The reform movements are doing this very thing. The result is astounding.

"To-day India is as the man with the withered hand in the temple. It is stretching out the hand, and it is being healed. Many of the old barbaric superstitions have already gone for ever from the land they cursed for ages. In thirty thousand miles of travel in India, I did not see a single bed of spikes actually in use. This, barbarism, which has so long typified Indian superstition to other parts of the earth, has been forever relegated to the past. The only one I know about in India is maintained in a native quarter of Calcutta for the purpose of showing sight-seers and tourists!"

The Arya thinks it is his old religion that is asserting itself in shaking off the sacrilegious accretions that had gathered around it. Christianity itself requires a new leaven from the Arya Dharma. The Bishop conveniently forgets that what of high morality and sublime spiritual truth there is in Christianity is borrowed through Buddhism, from the primeval fount of the Veda. What in the new movement appears to him Christian, is in reality Vedic. It were easier for us to establish our statement if the Bishop had specified a few points which he regarded as peculiarly Christian. *The Literary Digest* from which we have culled the above quotation gives none.

USURY IN ISLAM.

Thus Prof. A. M. Moulvi in an article contributed to *The Indian Social Reformer* for May 19, 1923 :—

Let us take for instance the question of usury in Islam. The Koran says, "They who swallow down usury shall arise in the last day only as he ariseth whom Satan

has infected by his touch." Ch. II 276. The Prophet says "Cursed be the taker of usury, the giver of usury, the writer of usury and the witness of usury." Our learned divines maintain even at the present day that the word 'Riba' used in the Koran for usury signifies not only an iniquitous or illegal gain on a loan but any kind of interest on money lent. Looking to the seemingly dogmatic prohibition in Islam from taking or giving interest on the one hand and to the pressing needs of our community for borrowing or lending money on interest owing to a change in the present economic conditions of the world on the other hand, we must decide in one way or the other whether we have to follow the injunctions of the Koran in these matters literally by renouncing the world, living the life of ascetics and taking to wholesale beggary or we should treat such injunctions as social laws and bend them or even break them if possible to make them more adaptable to the present needs of society. Which is better ; I question ; to be carried away by the popular belief that all such social Islamic laws are inelastic and thus come to a sad conclusion that the ninety per cent of the present Muslim world who cannot help lending or borrowing money on interest are infected with the touch of Satan and cursed for ever by the Prophet, or to read and interpret such laws in the light of History and Reason and modify them to suit our requirements ?

If Islam prohibits the giving and taking of exorbitant interest alone, and not of interest bare and simple, then the injunction of Manu, the great Law-giver of Aryas is the same as that of the Koran, and on this head at least the two neighbouring faiths are at one, for the former, too, prohibits usury in as much as even the food offered by one whose subsistence is on interest alone, a *Kusidajivi*, is declared as impure and unfit to be taken by a Brahman or a Sanyasi. It is a happy sign of the times

that our Muslim brethren are waking to a sense of the natural necessities of commercial life which is a part of social and communal life, and have begun to realize that Islam as interpreted literally by the *Ulema* is unsuited to the developed conditions of to-day. At the time it was preached by the Arabian Prophet, it was calculated to meet the necessities of Arabia alone. Today you have to modify it to suit your time and clime.

ISLAM AND WOMAN.

At another place the same writer has the following remarks as regards the attitude of Islam towards woman :—

Such was the respect he entertained for woman that he made a man's good treatment of his wife the very gauge of his goodness in general. "The best of you is he who is best to his wife" was constantly on his lips. "Reverence the mothers that bear you" is the teaching of the Koran in this respect.

Our brethren of the Punjab have to lay this lesson specially to heart. A Mohammedan contemporary, finding at last that the stories of Mohammedan molestation of Hindu women, adopted as a part of Muslim tactics in the last riots at Amritsar and Multan, were unfortunately true, advised the adoption of *purdah* by Hindu ladies. What a sad reflection on the travesty of morals as far at least as the treatment of womanhood is concerned, among the Mohammedan community ! Prof. Moulvi's statement of the Islamic view of woman will perhaps be a wholesome dose to these *parda*-infected people.

PRESENT-DAY MOHAMMEDANISM AND WOMAN.

The writer is quite candid in admitting that the position of woman

among the present day Mohammedans is far from satisfactory. Says he :—

We, Muslims, must bear in mind that we can never move forward unless and until we begin to feel in our hearts that we are extremely backward. We must admit that we have, in general, contrary to the teachings of Islam, done woman a great wrong by denying her the benefit of modern civilization and treating her as a mischievous criminal, a danger to society and a fit person for perpetual confinement within four walls.

IS ISLAM THE FINAL DISPENSATION ?

The writer feels that in social matters at least the laws of Islam require to be changed. Islam can not be regarded as constituting, in all the phases it presents, the final dispensation of divine wisdom.

As long as the majority of our backward Muslims do not make up their minds to banish from their heads the monstrous belief that Reason is fettered by Faith and that they are condemned to receive their laws even on social matters as articles of belief on which it is impiety to exercise their reason, we are bound to remain stationary for ever and no material change or progress can be expected of us at any future date. Nothing has scandalised Islam more and nothing has retarded the progress of our community more than the belief prevalent among most of us that Islam expects every Muslim to be tied hand and foot by laws and social customs which were intended for Arabian society as it existed 1200 years ago.

Unless we draw a broad line between what is religion proper and what constitutes social laws, which must respond to the needs of all classes of people at all times and in all countries, we shall have to admit that our creed is impracticable for all worldly purposes, and is meant only for ascetics and 'sanyasis' and not matter-of-fact men of the present world.

HINDUISM A MISSIONARY RELIGION.

Prabuddha Bharata an organ of the Ram Krishna Paramhansa's Mission, delivers itself in the following strain as regards the Shuddhi movement in progress in these days :—

The vitality of Hindu civilization is once again expressing itself in renewed activities in various spheres of life, political social and religious. One of the most redeeming features of this renaissance is that Hindu Society is breaking through the incrustations of conservatism and orthodoxy which once served as protective measures but are now proving to be stumbling-blocks in the path of national growth and advancement. It is again realising the ancient spirit of assimilation and inclusion which enabled it to conquer culturally even many of its political conquerors. It is awakening to its duties and responsibilities towards those classes which were the victims of the spirit of fanaticism and religious persecutions, often let loose during the Mohammedan rule in India. Many of these communities, although they were forced to renounce the church of their forefathers, never lost their living faith in the ancient religion. But still no attempts were made to readmit them into the Hindu fold because of the suicidal policy of exclusiveness adopted by Hindu Society for centuries together. It is undoubtedly one of the most hopeful signs of the times that, true to its ancient spirit of universalism, it has again opened its doors to all who want to be admitted into its fold, and sincerely follow the paths leading to Immortality and Blessedness first discovered by the great Rishis of ancient India. To many a superficial observer unacquainted with the true history of the propagation of Hinduism, such a step may appear to be a departure from the common practice. But in reality it is an expression of the infinite vitality which enabled the Eternal Religion of India to

absorb diverse races and nationalities, and transform them by the potent influence of its high ideals and universal principles.

The inexhaustible power of assimilation latent in Hindu Society manifested itself during the great revival of Hinduism, when Sankara and Kumarila, and later on Ramanuja and other religious reformers, fought hard against the various forms of Buddhism and Jainism, and brought the Buddhists, Jains and aborigines alike into the fold of the Mother of religions. This process again went on vigorously when, spurred by the cruel persecutions and forcible conversions undertaken by the aggressive followers of Mohammad the vitality of the Aryan religion expressed itself in a mighty religious revival more liberal in spirit than its predecessors. Ramananda, Kabir, Chaitanya and a host of other great teachers flourished during this momentous period and opened the doors of Hinduism to peoples of all castes, races and religions. Contrary to the usual custom they did not hesitate to admit even Mohammedans into their fold, as also the members of the various Buddhist sects, who often converted by force into Islam were swelling the bulk of the Mohammedan community in India.

No communities in India should look upon this new awakening of Hindu Society with any feeling of suspicion or jealousy. They should rather welcome it heartily, and rejoice that the weakness and passivity of the followers of Hinduism, which stood in the way of true inter-communal union, is yielding place to renewed strength and activity. For truly speaking this revival is preparing the way for a great national union which has ever been the dream of the greatest saints and patriots of this holy land. The first condi-

tion of this union is the recognition of the equal rights and privileges of all communities. A union which demands the surrender of the primary rights of any class or community for the sake of political expediency can never stand the test of time. We want the union of the strong. Sham union between the weak and the powerful is sure to end only in disruption and national disaster, if not in the most unwelcome absorption of the weaker element by the stronger. We want each community to realise its manhood and individuality, to stand boldly on the bedrock of its own faith and culture, to assert its rights to pro-

fess and propagate by all moral and legitimate means the faith it sincerely believes to be most beneficial to itself and humanity. And then will naturally follow an abiding national union based on mutual respect, on equality of rights and privileges, on the recognition of the great fact that however wide may be our differences as regards matters non-essential, our highest national and communal ideals are one and the same. And these we can never realise without the hearty help and co-operation of the various sister communities which form the limbs of our common Motherland, India.

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प्राकार शास्त्र ।

DEFENSIVE WORKS.

In this world there is competition every where and it is a necessity that everyone should be able to defend himself against competitors. Nature has provided many defensive weapons or contrivances for each individual, and human beings use, besides these natural defences, artifical defensive contrivances. The first mention of a defensive work occurs in the Vedas as under :—

यत्तेशिलपं ककश्यरोचनावत् ।

इद्रियाव तुष्टकलं चित्रभानु ॥

यस्मिन्न सूर्या अर्पिताः सप्तसाकं ।

तस्मिन्नराजानमधि विश्रयेमम् ॥

यजुर्वेद, तैतिरीय ब्राह्मण अ० २ प्र० ७

अ० ७६ द० ३ अ० ७

O Kasyapa ! your this Engineering work is very attractive, strong, extensive, beautifully glittering, the rays of the sun form a seven-coloured rainbow on it. May this king take refuge in it. This verse gives all the qualifications that a defensive work should have.

Weapons were long in use and are mentioned in the Rigveda but the mention—clear mention, of a fortress is to be seen in this verse

or Mantra which also mentions its qualities.

(1) A fortress must be रोचनावत् pleasing. That is, it must be able to supply all the wants such as food, water &c. of the inmates.

(2) It must be इन्द्रियावत् having many organs suitable for different purposes such as weapons, missiles, loopholes, stores, secret passages &c.

(3) It must be पुष्कलं extensive, so as to be able to accomodate many persons with their requirements or supplies.

(4) It must be चित्रभूतु beautiful to look at, that is, having different aspects from different points or sides, the object being to misguide the enemy by false appearances.

(5). The fortress is to be able to reflect the rays of the sun into a seven-coloured rainbow. It is likely that the fortress was armoured with some metal sheeting. Armours were in long use on the bodies of human and animal beings as can be seen from many verses of the Rig Veda and a fortress may have been similarly armoured as ships and motor waggons are armoured in the present times. For a fuller description see नौकाशास्त्र and विमानशास्त्र.

(6). The king is to take shelter in this fortress with his court attendants.

The first defensive works that occurred to human beings were (1) an island and (2) the top of a hill, and the two principal deities of the Hindu Mythology are stationed in these.

कैलासे नगरं शिवेन रच्चितं गौर्यादि संरक्षणे ।
दुर्गं पञ्चम सागरे च हरिणान्येषां किमत्रोच्यते ॥

राजवल्लभ अ० ४

Shiva (who is satisfied with the least enjoyment) has built his residence on the Kailasa Mountain ; while Vishnu (the God having the largest number of amenities) lives in an Island in the fifth or Milk Ocean. A defensive work is defined as under.

एकः शतं योधयति प्राकारस्थो धनुर्धरः ।
शतंदशसप्ताणि तस्माद्दुर्गं विशिष्यते ॥
अप्यल्पबलवान् राजास्थिरो दुर्गवलाद्धवेत् ॥
युक्तिकल्पतरु ।

When stationed on a fortress one soldier is able to resist or fight hundred soldiers and one hundred soldiers hold at bay ten thousand soldiers ; this is the peculiarity of a fortress. A king with even a very small army is secure owing to his defensive works or forts.

अकृत्रिमं कृत्रिमं च दुर्गतु द्विविधं भवेत् ॥
युक्तिकल्पतरु ।

Defensive works are of two sorts viz., (1) Natural and (2) Artificial.

यद्वैघटितं दुर्गगिरिनद्यादिसंश्रितम् ।
अकृत्रिम मिदज्ञेयं दुर्लभ्यमरि भृभुजाम् ॥
प्राकारपरिवाररयसंश्रयं यद्भवेदिह ।
कृत्रिम नाम विहेयं लघ्यालघ्यंतु वैरिणाम् ॥
युक्तिकल्पतरु ।

A place which owing to its situation on steep and very high mountains, or strong and deep rivers, or a thick and intricate forest, is naturally difficult of access is called a "Natural defensive work" and a place which owing to walls, ditches, thorny surroundings &c.,

is made inaccessible by artificial means is called an "Artificial defensive work." A natural defensive work is really inaccessible at all times while an artificial defensive work may be inaccessible for a time but can be made accessible by the destruction of the artificial barriers. It will thus be seen that a natural defensive work is always the stronger of the two. The latest European war also proved this. The Germans who could demolish fortresses like those of Antwerp, Liege or Warsaw have not been able to surmount the Alps or reach England.

Natural defensive works are of seven classes

गिरिवन जल पंक्तेरिण दैवत मिश्राणि सप्तदुर्गाणि ।
गिरिमध्यं गिरिपाश्वं गिरिशिखरं पार्वतं दुर्गम् ॥

अजलं तस्वनगहनं वनदुर्गं तदुभयं च मिश्रं स्यात् ।

दैवंतु सहजदुर्गं पंक्तयुतं पंकदुर्गं स्यात् ॥

नद्यविश्वं परिवृतं यज्ञलदुर्गं निर्वदोदमिरिणं स्यात् ॥

मयमत् ।

viz., (1) गिरि Mountain (2) वन Forest

(3) जल Water, (4) पंक Marshy (5)

इरिण Desert (6) दैवत Natural (7) मिश्र

a combination of these.

(1) A mountain fortress may be

(a) surrounded by hills or mountains like Switzerland or Kashmir

(b) backed by a moutain or situated on the side of a mountain like Nepal. Or (c)

situated on the top of a mountain like Tibet or Deccan.

(2) A forest fortress is one surrounded by a waterless forest or by a thick and intricate forest only. The Maratta fortresses of Shivaji may be cited as instances of this class.

(3) A water fortress is one surrounded by deep rivers or sea. The fortresses of Bukkar in the Indus Allahabad at the confluence of Ganges and Jammna or the sea fortress of Maluan and others on the west coast are instances of this kind.

(4) A marsh fortress is one surrounded by marshy lands on all sides.

कुरुजांगल in ancient India, country surrounded by the water of the Son in Behar or of the Kaveri in Madras Presidency are instances of this kind.

(5) A desert fortress is one surrounded by a waterless desert. Fortresses in Rajputana and Runn or that of वल destroyed by शत्रुघ्नि are instances of this sort ; the Sahara desert is also an instance of this class.

(6) A natural fortress is one situated amongst natural difficulties. Fortresses on rocky and rugged islands, snowy mountains like the Alps or Himalayas or inaccessible points like the two poles or the Sahara desert are instances of this kind.

(7) A mixed fortress is a combination of one or more of the above kinds. All modern fortresses are generally a combination of fortresses.

यस्मिन्देशे गिरिनास्ति नद्यो वा गहनोदकाः ।

तस्यमध्ये महीपालः कृत्रिमं दुर्गमाचरेत् ॥१॥

गजैरलंघ्या विस्तीर्णा गंभीराः पूर्णवारयः ।

दुर्गत्वेन समादिष्टाः परिखा बहुयादसः ॥२॥

विशालशालं सुघनं बहुकंटकिसंयुतम् ।

दुर्गत्वेन समादिष्टं विस्तीर्णं विषमं पदम् ॥३॥

अधोधो बध्यमानोहि कंदरोऽल्पजलान्वितः ।

दुर्गत्वेन समुद्दिष्टः सुदुर्लंघ्योहि भूभुजाम् ॥४॥

सर्वतः परिखां कृत्वा निवद्धं परिकंद्रः ।

तज्जलप्लुतदेशत्वाज्जलदुर्गमितिस्मृतम् ॥५॥

एषामभावे निष्ठस्य भूप्रदेशस्य बंधनात् ।

वर्षादिसंचिते वारौ जल दुर्गं तदुच्यते ॥६॥

एतेषा मपि संमिश्रात्संमिश्रं दुर्गमाचरेत् ॥

युद्धज्यार्णव ।

In a country in which these natural advantages of a mountain, deep water, intricate forest &c. are not available the king should resort to Artificial defensive works. These are of six sorts (1) Ditched (2) Barbed (3) Trenched (4) Walled (5) Bunded and (6) Mixed.

(1) A ditched fortress is one which is surrounded by wide and deep ditches, which can not be crossed by elephants, which are full of water and water animals such as crocodiles.

(2) A barbed fortress is one that is surrounded by thorny entanglements attached to strong and heavy posts erected on an uneven and extensive area on all sides.

(3) A trenchéd fortress consists of deep and built trenches having very little water in them and these (when defended by men) are impassable by (armies of) kings.

(4) A walled fortress is one which is surrounded by walls, with ditches full of water running along them on all sides of the fortress.

(5). When this is not possible any low-lying part of the country may be banded and flooded with rain or river water and thus made impassable ; this is called a banded fortress.

(6). A combination of any one or more of these as circumstances may permit is a combination fortress.

संप्रवेशापसरणं दुर्गमुच्चम मुच्यते ।

अन्यत्र वंदिशालेव नताद्वार्गदुर्गमाश्रयेत् ॥

युद्धज्यार्णव ।

In taking refuge in any of the above sort of forts it should be clearly borne in mind that the owners of the fortress should be able to get in and get out at their pleasure. If this is not provided for, the fortress becomes a prison and one should not take refuge in such a defective fortress. In taking precautions one should always see that one does not get entrapped.

धनुदुर्गं महीदुर्गं गिरिदुर्गं तथैवत्त्व ।

मनुष्यदुर्गं संसर्गं वरदुर्गं च तानिषट् ॥१॥

न दुर्गं दुर्गमित्याहुयोध्वदुर्गं प्रकीर्तितम् ।

योध्वं शून्यं हि यददुर्गं मृतकायसमंहितत् ॥२॥

युद्धज्यार्णव ।

A Fortress is defensive owing to (1) the range of the weapons on it, (2) its situation and surroundings (3) its height and inaccessibility; (4) the army it contains and (5) the help it can command (6) from its good neighbours. Really a fortress is not a defensive work but the army in it is the defensive work ; a fortress having no combatants is only like a dead body. However massive a dead body may be, it inspires neither awe nor respect and this is the case of a fortress without an army.

The shape of a fortress should be such that it has the smallest circumference to defend with the greatest accomodating area. The points for assault should be the fewest. Circular is the best shape and next to it is a square. The stones &c., set in a circular ring hold one another very firmly and want of any corner or sheltering points makes the thing very unassailable. A

square with towers at the corners is therefore the usual shape adopted for artificial fortresses. Natural fortresses, of course, follow the natural configuration but the chief point to be kept in view should be that the fortress should in no way be prominent or easily marked or distinguished from its surroundings. An easy natural and flowing curvilinear shape is the most suitable. A triangle is the worst shape for a fortress or a defensive work as it gives the least accomodating area and has largest defensive perimeter. Projecting corners being assailable on both sides are the least defensible and are always scrupulously to be avoided. A डम्र shaped figure is also bad as there is the danger of the two sections being cut off from each other by a strong and wily enemy. An approaching enemy should have no cover to hide him from the fortress. This was the thing which helped the Japanese in taking Port Arthur. They approached the fortress unobserved under the cover of a trench and a heavy bombardment and carried the Russian fort.

दुर्गं दुर्गमसुक्तं दुर्लभ्यं दुरवगाहं स्यात् ।
रक्षार्थं च जयार्थं ह्यरिभिरभेदं च दुर्गमिष्ट्यस्यात् ॥
मयमत ।

A fort should be difficult to reach, difficult to pass, difficult to enter, and difficult to pull down; when possessed of these qualities, then only it is useful as an instrument of defense or offence and can be called a real defensive work or fort.

अक्षय जलान्नं शब्दं ह्यतिविपुलोत्तुंगघनसालम् ।
सर्वं हि दुर्गजालं सप्राकारं त्वनेक मुखरक्षम् ॥१॥
घहिरुदकरहितवनं छन्नपथं दुष्प्रवेशं च ।
गोपुरं मंडपयुक्तं सोपानच्छन्नमच्छन्नम् ॥२॥

सर्वस्याभ्यन्तरतः पांसुचयो पर्यनेक यंत्रयुतम् ।
परितः परिखोपेतं पांसुचये संहताद्वालम् ॥३॥
परितः शिविरोपेतं नानाजनवास संकीर्णम् ।
नृपमश्वन सभोपेतं हस्त्यश्वरथपदातिवहुमुख्यम् ॥
धान्यैस्तैलैः क्षारैः सलवणमैवज्यगंधविष्यम् ।
लोहागारक्षायु विषाणवेणिवं धनैर्युक्तम् ॥५॥
तृणचर्मकारयुक्तं सञ्चलकलं सारदारुयुतम् ॥
मयमत ।

A fortress should contain the following :—

- (1) An inexhaustible store of water, food and weapons.
- (2) Its area should be very large and it should be surrounded by solid and high walls, and turrets.
- (3) It should have many entrances and should be guarded and defensible from many points.
- (4) It should be surrounded by forest without water.
- (5) Its path should be (secret) covered and difficult to enter.
- (6) It should have towers and rest houses which should have open and secret steps leading to them.
- (7) In its center on a heap of dust should be mounted many different machines of defense.
- (8) All round, it should have ditches, and on the walls, made of dust, guns should be stationed.
- (9) On the outskirts should be cantonments and in the interior various sorts of artizans and craftsmen should reside.
- (10) A fortress should have the king's (officer's) residence with that of his court in which the commanders of

elephants, horses, chariots, and infantry should sit and hold councils.

(11) There should be stores of various sorts of corns, oils, medical salts, smells and poisons, metals, coals, horns and flesh of animals, bamboo and firewood, fodder, leather, factories, cloth manufactures and good and strong timber.

पर्यंते यंत्रयुतं परितः परिखेश्वसंयुक्तम् ।

शतधन्याद्यैश्च परितः परिस्तीर्णोच्छ्रुताद्वकम् ॥

शिलपरत्न ।

अन्नाद्यै धृततैल तोयलवणैः काष्ठैस्तृणाद्यैस्तथा
यंत्रोपस्करवाणशब्दसुभरैः संपूरयेऽभूपतिः ॥

राजबल्भम् ।

यंत्राः पुराणामथ रक्षणाय

तंग्रामवहन्य बुसमीरणाक्षाः ।

विनिर्मितास्ते जयदा नृपाणां

भवन्ति पूज्याः सुरयाच मांसैः ॥

राजबल्भम् ।

A fortress should be protected on all sides by a deep ditch, full of water, and should be guarded by various machines. The king should see that the fortress is well supplied with machines throwing or using arrows and other weapons. The machines intended for the protection of a town should use the power of hands, fire, water or wind and the persons using these should be kept satisfied by means of flesh and alcoholic drinks in order that they may work hard and secure victory to the king. When these persons are intoxicated they work most recklessly and hardest and do not fear death.*

हस्तौ अष्टचभैरवो भवकरश्चंद्रो दशाद्यौ भवेत् ।

रुद्रौभीमग्नजोऽपि भास्करकर्युग्मंच विश्वेसुखी ॥

प्रोक्तोऽसौ यमदंडपव मुनिभि स्तिथ्या महाभैरवो ।

ह्यष्टौ शंकर निर्मिताश्च समरे देवासुराणां पुराः ॥२३॥
यंत्रेचाष्टम केष्टहस्त फणिनि सूर्यांगुलोविस्तरे ।

स्तंभामर्कटिका च वंजरमताष्टत्रिशहस्ताः कमात् ॥

यष्ट्या पृष्ठ विभागकोऽपिरदिनैस्तुल्योष्टमात्रांगुलैः ।

प्रोक्ता कुण्डल वेलिनीच बहितोमध्येदशैरंगुलैः । ॥२३॥

यष्ट्यां दृढां यर्करिकां विद्धयात् लोहेनकीलेन च
गर्मणा च । यंत्रं प्रकुर्याद्दृढ काष्टचेश्चेत् तन्मायया
चोतिक्या समेते ॥२४॥

करांगुलैः पंजरकस्यैदृष्टं तेषां मतेहस्तमिते च
यंत्रे । या ठिगुली वन्हिजलानिलक्षास्तेलक्षतेऽङ्गैः
परिकल्पनीयाः ॥२५॥ राजबल्भम् ।

A gun that is eight hands long is called भैरव, भयकर one ten hands long is called चंद्र, one twelve hands long is called रुद्र, or मीमगज one fourteen hands long is called विश्वेसुखी, one fifteen hands long is called यमदंड or महाभैरव; these eight sorts of canon were constructed by शंकर in the old battles between the gods and demons. A gun eight hands long will be twelve अंगुल in diameter at the mouth, and its frame and posts will be thirty and six hands respectively ; its smaller end or back will be eight अंगुल and in the middle it will be ten अंगुल; the bore should be rifled inside like the spiral of a Nut creeper. The gun should be firmly fixed in the frame with iron bolts and leather washers, and the whole including the frame should fit together and in swing only as a whole. For a gun one hand long the bore should be two अंगुल in diameter and the method of firing

* This appears to have been a practice of later times. —Ed.

it by a spark and aiming with the consideration of wind etc. should be fixed by the marksmen (by experiments and trials.)

This brings me to the discussion of Indian Machinery. Up to now I have not been able to get any text dealing solely with Indian Machinery excepting यंत्रार्थ but references to machinery occur in many texts here and there, sometimes in similes, at others by allusion, and sometimes in short descriptions as noted above. In the following few pages I have summarised all that I have gathered on the subject, and though the description is very meagre, still it will give one an idea of

the machinery used by Indian Engineers before the advent of the British. The oldest Engineering texts were compiled about four thousand years B.C. and the latest belong to the sixteenth century A. D. I have not been able to get any Engineering texts of an earlier date and have no means of fixing the dates of any older ones though some of the texts may be of a very remote date, for aught I know, as there are references to Engineering works and processes even in the Rig Veda, the oldest known literary work in the world. The information collected by me pertains to texts or compilations of these fifty-six centuries.

GLIMPSES OF DAYANANDA.

XII.

THE PATRIOT-POLITICIAN.

Dayananda was no doubt a cosmopolitan sage, but all the same he was both a patriot and politician. He has been recognised as the precursor of a new age of new moral values—new not to him but to the rest of the world as that world was living and thinking at the time when he appeared on the scene. His ambition was to see a reformed world, not simply a reformed country. We have already related how he welcomed into his arms disciples from far-off West. All this shows that his sympathies were human, not narrowly national. For the success of his very cosmopolitanism, however, it was necessary that he

should fix a centre, whence he should start his centrifugal activities of his universal mission. Lest your love of man should, in your vain ambition to enclose at once a whole universe in your necessarily narrow arms, evaporate in a fancy, a dream, on account of the very absence of a practical scheme before you—for in the world as it exists to-day, there is very little possibility of formulating one—of bringing by the force of any idea, the whole human family under one roof, it is necessary you should begin showing your immediate affections to your immediate neighbour. Patriotism, unless it prejudices the interests of another country is a necessary factor of cosmopolitanism. Dayananda's own country was, in his

day, in the hard grip of a foreign exploiter. It was economically, politically, and culturally being treated as a helot of the rest of humanity. It appears to us to be a divine providence that to arrange for them, as it were, an appropriate schooling, nature gives birth to the redeemers of humanity in places where humanity is, at the time, in direst woe. In subject communities the spirit of cosmopolitanism finds a favourable soil. From their own experience of foreign tyranny, such communities naturally develop world-wide sympathies for fellow-men. The danger of this spirit is that over-worked and over-strained it translates itself into indifference of one's own country. Slothful souls find in the easy flights of this flimsy spirit, a convenient refuge from the hard, tiresome struggle that goes on at their doors. Slogans of world-wide sympathy are the easiest to cram and parrot-like repeat when the time comes to respond to patriotism's call. To religious reformers, the temptation to avoid this earthly struggle appeals most naturally. Their field is spiritual. For the things of the earth there is no place in their heavenly cares and sympathies.

Not of such fibre was Dayananda's constitution made. Politics appeared to him to be the controlling factor of human life. Unless that factor is purged of its impurities, no religious uplift will help suffering mankind. More than half the ills of humanity have their root in perverse politics, and if religion should forego addressing itself to this most important and most comprehensive field of human action, it confines itself to an incredibly narrow region, a region virtually of

inbecility and impotency. All religions that have made their mark on the history of mankind began from moral and social reform and ended with political upheavals. Morality exerts its greatest momentum in politics, and politics in its turn, has its ripest fruit in the public and private morality of citizens.

Dayananda's most pathetic prayers, those that gush from his heart, are the prayers that seek to remedy the ills of his country. The very word *Swarajya*, which to-day is India's watchword, was first used in its present political bearing by Dayananda. The death of the sage occurred before the Indian National Congress came into being. But he had not only formed a dream of democracy, a dream which is flitting before the country to-day, but had also given that dream, his dream of plebescite, a practical shape in the constitution of his Arya Samaj. It is in this society that both majorities and minorities have at their command an effective instrument of giving expression to their views. Any school of opinion that can rally round it ten voters may have one member in the executive body of the Samaj. The Congress has yet to take its cue from Dayananda's scheme of political constitution.

Dayananda was the greatest respecter of the people's conscience. Only he would train that conscience in the proper way.

He would have every country, great and small, free to rule itself. In case a nationality breaks an inter-national convention, or for that matter conducts itself in a manner prejudicial to the interests of mankind, or in its internal management, tyranny holds

sway, in case, in short, something happens which necessitates interference from outside, Dayananda would permit such interference, even by the force of arms. He would, however, insist that this interference should be a transitory step, designed simply to reform the conquered community. The very day of the conquest should witness a change of the governing body, which should in no case, be composed, except of the children of the soil. Trusts in the long run prove life-long leases.

In the internal management of a country, Dayananda would give the highest place to enlightened self-sacrifice. He would set no monetary value on educational qualifications. Voluntary poverty appears to him to be the badge of piety and learning. Those with the least wants, and therefore the most selfless, should have the greatest hand in the administration of the realm. The executive belongs to others, but the inspiration and the determination is necessarily theirs.

At the head of the government should be the King. His office is not necessarily to be hereditary. The people choose him, and the choice lasts for his life, unless something disqualifying him for the office takes place in the interim. His person is as subject to the operations of the judicial codes of the realm, as that of his meanest subject.

To assist him, there are to be three assemblies, devised for the administration of affairs relating to legislature, Dharma, education, Vidya, and executive functions, Rajya, respectively. Education, no less than legislature, he would have free from the

control of the executive, to obviate the possibility of this most powerful humanising agency in the civic life of the community, being subordinated to selfish political ends.

Justice he would leave in the hands of Brahmins, those highly erudite but having no pecuniary interests in developing the resources of one class of subjects at the cost of another.

As to the means he would allow for the redress of the people's grievances, he has given his sanction to every variety of protest against, and remedy of, political tyranny, beginning from verbal appeals and ending in armed revolts. Of non-co-operation, propounded by Gandhi, not only the creed, but every single item of the practical programme also, is suggested by Dayananda in his books. He was both a co-operator and a non-co-operator. What particular weapon should be employed at a particular time is to be determined by the occasion. In the nation's armoury, however, there should not be scarcity of munitions of war, of any quality and of any brand.

To co-ordinate the administration carried on in various ways in various countries, he would have an international congress, presided over by a Chakravarti Raja. Sanyasis to whom the whole earth is their home, should have a determining voice in the deliberations of that whole-world assembly.

Such, in brief, was Dayananda's outline of a scheme for the governance of the political affairs of the whole world and of the countries which compose it. He would leave every country to develop its own culture. Only that culture should not become

a *kultur* with menace to the rest of humanity.

Dayananda was in favour of encouraging Swadeshi. The ordinary wants of the inhabitants of every country should, he says, be supplied within that country. For food and clothing especially, no land should depend on another land. It was at Wazirabad that the sage asked for a knife. And when a knife of foreign manufacture was brought to him, he was wroth expressing an incensed surprise at the inability of a town, where cutlery was the chief native industry, to supply him a knife of native make.

He displayed a bias in favour of native dress and native manners. His chief attack on the Brahmos was that they were discarding native modes of life. Every country has developed a set of forms, in which is cloaked that country's individuality. Unless something repugnant to higher humanity has crept into those forms, it is in the interests of the ancient culture of that country to stick to those forms and keep them intact. Dayananda, that lover of humanity at large, was, strange as it may seem, an advocate of Swadeshi—a Swadeshist to the core.

He would not relinquish the language of his country. When B. Keshab Chandra Sen regretted his ignorance of English, which circumstance, he said, incapacitated him from going to preach his faith in England, he was ready with the retort that more deplorable still was the learned Keshab's imperfect mastery of the native tongue which stood as a bar between him and his people.

At the door of an ancient fortress, which the British officers held in custody, he was asked, as a preliminary to admittance, to take off his turban and go in with his shoes on. No, said he, this would reverse Indian custom, which he was not prepared to do, even for a higher purpose than that of having the temporary pleasure of sight-seeing.

With such patriotic prejudices, Dayananda was yet a cosmopolitan sage of the first brand. His was a mixture, a chemical union more properly, of the love of man and the love of his country. To him the two loves appeared to be but two forms of a higher love, the love of his Lord.

Devotion.

Pt. SATWALEKAR'S KENOPANISHAD.

The Pundit's Explanation Examined.

(By 'Criticus'.)

My review of Pt. Satwalekar's Kenopanishad has evoked a volley of furious condemnation on the part of that learned author of that profoundly erudite book. To him my criticism appears to contain not a single grain of truth. It is, on the contrary, full of untruth असत्य from end to end. The Pandit even doubts my motive in writing that review. He thinks I have once taken a position in regard to his book, and simply with a desire to stick to that position, and if possible to fortify it, I am now wasting my whole powder and shot. Nothing, in fact, is farther from my intentions. In case you can not answer the arguments of an opponent, pray do not call him dishonest. Your chagrin reveals your own weakness, and your impatient rage is a sign that you have lost your case, and with it your temper. Whether the Pundit has done so, I do not know. I have stated a general rule, a truism which each of us may keep in view as a safe guide in polemics, lest the discussion we are pursuing may pass into a repartee. I assure the Pundit, for what my assurance is worth, that if I am proceeding with my criticism and counter-criticism, it is simply with a view to sift the truth. It is possible my judgment may be wrong. Not so my motive.

The Pundit appears to have assumed that *Criticus*, whom he in his distorted

dictation calls कृटीक (I do not know what he means by the term, though a sinister implication was suggested to me by a friend of both the Pundit and Criticus), is an English-knowing baboo, ignorant of the very alphabet of Sanskrit. Why otherwise should the counsel to study, to ruminate, and to assimilate have been repeated over and over again in the course of an explanation of a simple puzzle शक्ता? A little knowledge of English is no doubt among Criticus' faults, but as an additional fault he possesses a little knowledge of Sanskrit as well, with whose aid he has had the audacity to intrude into a part, only a part, of Arsha literature. In obedience to the elderly advice of the Pundit, he will persist in that audacity, and read of the Shastras more and more. If the Pundit will judge aright, the very criticism that has, without cause, evoked his ire, is an attempt of Criticus in the self-same direction, the direction of study.

The Pundit is hard also upon the Editor of the Vedic Magazine. The offence of this latter gentleman is that he has allowed an un-Vedic, perhaps anti-Vedic review—such is the Pundit's opinion—to appear in his journal. It were better if the Pundit had sent his Vedic or pro-Vedic explanation to the same Editor of the so-called Vedic Magazine. The contamination of my un-Vedic criticism should thus have been washed off and the class of readers that had read

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my queries should have read also their answers by the learned Pundit. To me one purpose of the Arya Samajic journals appears to be to encourage discussions, such as this one that is going on between me and the Pundit. To the Pundit perhaps my queries may seem worthless but I have to thank those very worthless queries for the invaluable benefit I am deriving from the Pundit's learned answers. If each Arya journal shoud save one such misguided soul, it has proved itself worthy of its salt.

To come, however, to the points at issue. My main objection with which I began my criticism in the 'World of Books' columns of the Vedic Magazine and which I have since repeated in my review; was that in relation to the Pundit's fathering his own meaning on Shri Shankaracharya. This point the Pundit carefully avoids. In his whole explanation (उत्तर), covering as many as twenty-eight pages of the Vaidika Dharma for Shravana 1980. V., he adverts to this point only once, and that too in a line or two. He says that the real point to be discussed is whether *Uma* in the Upanishad can stand for *kundalini* or not. Am I to conclude that in the matter, at least, of Shri. Shankar's interpretation of the verse we are discussing, he accepts my position? If so, let him be more candid, and promise to make necessary alterations in his exposition.

In Shankar's commentary there occurs the phrase ज्ञातुं समर्था (capable of knowing) in reference to *Uma*. My point is that *Uma* so qualified should be a sentient being and not the insentient *Kundalini*. P. Satwalekar meets this

argument by asserting that Buddhi is likewise insentient, a material entity, and yet Buddhi of the Darshanas knows. Buddhi, however, as the Pundit may be aware, is a *Karana*, an instrument of knowledge, and not the knowing subject. The description in the Upanishads is allegorical. There *Uma* knows and helps others to know. A similar case cannot, I believe, be made in regard to the characterisation in Shankar's explanation, which is simple, easy, bald prose. The whole trend of Shri Shankar's explanation points to Parvati, the Pauranic deity, being *Uma*.

P. Satwalekar has apparently confused in his imagination the terminologies of two different branches of literature viz., that on Hatha Yoga and that setting forth the mythology of the Shaiva sect. Some technicalities of the two literatures are no doubt common. But in their different bearings the meanings of these technicalities are different. One such term, for instance, is *Shiva linga*. In Hatha Yoga it is the name of something of the form of a triangle, round which *Kundalini* entwines itself. With Shaivas *Shiva-linga* is decidedly something else. What that something is does not concern us at present. The explanations of the Shaivas themselves vary, and I shall be unnecessarily lengthening my article by dragging in an irrelevant topic. The *Uma* of the *Shiva Purana* performs austerities which ultimately make her the spouse of *Shiva*, while the *Kundalini* of Hatha Yogis is always near *Shivalinga*. Shaivas again have a character; Mainaka, the wife of *Himavan*, of whom *Uma* is born, while in Hatha Yoga, there is no such character.

as should correspond to, or be identical with, Mainaka. Even the Himavan title, if P. Satwalekar has, in some being introduced into *Hatha Yoga* literature for the first time by P. Satwalekar in his exposition of the *Kenopanishada*.

Hatha Yoga, it is possible, may have borrowed its terminology from Shaiva literature, or *vice versa*, the Shaivas may be indebted to *Hatha Yoga* for that gift. But now both have adapted their terms to their own purposes, and an identification of them is impossible.

What concerns us most in this connection is that in Arsha literature there is no mention of *Kundalini*. The *Yoga Darshana*, within whose province such topics should properly fall, nowhere so much as refers to it. Men competent to form an opinion on the subject have doubted the truth of some of the statements made in *Hatha Yoga* books. Not that these books are all trash. They contain some very valuable suggestions. But the truth of a part is no testimony of the truth of the rest of the book. The reader may remember how Dayananda, referring to an incident in his scholastic career, describes his casting away of a book simply because the hints on anatomy contained in it did not tally with the construction of a corpse which he had seized and dissected.

That *Kundalini* is something physical, the Pundit has already admitted. It coils round Shiva-linga three times. He, however, objects to my characterisation of it as a *Nadi* or *Shakti*, I fear, is a mystic name, employed by *Hatha Yogis* to cloak the physical indemonstrability of professedly physical entities, which they alone presume as existing, and which perhaps on that account

they ingeniously cover under a vague title. If P. Satwalekar, has, in some *Yogic* exercise, perceived the form of *Kundalini*, and has found in it something which makes it *shakti* as distinguished from *nadi*, I have no scruple in naming it as he wishes, though to the description given of it in *Hatha Yoga* books, I find nothing repugnant in the other, more material, title. Let the Pundit kindly state those features of *Kundalini*, which the word *shakti* alone can bring out and which the word *nadi* repudiates?

That *Himavan* designates the spine is another discovery of P. Satwalekar. To corroborate this assumption, he does not quote any authority even from *Hatha Yoga* literature. His only credential here is the testimony of Nirukta. *Parvata* he treats as a synonym of *Himavan*. Synonym no doubt, it is, but not of *Himavan* as it is spoken of in the *Shiva Purana*. There the father of Uma is a particular mountain, while the word *Parvata*, the derivation of which is given by Yaska, is a general name, signifying any mountain. Even if the derivation of a term should determine its denotation, which, as its legitimate function, it does not, how will the derivation of one word determine the denotation of another distinct word, even though the two words be synonyms. *Parvata* is no doubt *Parvatan*, i. e., composed of joints or uneven portions. This is its derivative meaning. Its denotation is still a mountain, not any and every thing that has *parvas*, joints or uneven parts. If by any stretch of imagination the word *parvata* should be made to yield, what it should not, unless some independent evidence from

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literature be forthcoming, yield, the meaning which the Pundit, by dint of his exquisite imagination attaches to it, how will the word Himalaya, too, in the absence of some independent corroboration from Nirukta, yield that same meaning? The Pundit suggests that on the top of the spine there is white brain-matter, which may metaphorically serve the purpose of snow. A queer comparison! Everything white is not *hma*. Even Apte and Monier Williams, whose lexicons, unless they have at their back some older authority, are of no value in the exposition of Arsha literature, do not lend their support to this exquisite flight of fancy. Is similarity of colour, like unto derivation, a determinant of the meanings of terms? The Pundit's interpretation is, I fear, permeated through and through by hollow fancies, which give to his elucidation a flimsy charm, but not the stable strength of a judicious exposition, well-grounded on authorities.

The Pundit's liberties with Dayananda's explanation are more remarkable than his exploitation of the exegesis of Yaska. In reply to an opponent, who referring to the names Ganga, Yamuna and Saraswati occurring in the Veda, insists on Dayananda's adoration of the rivers, the sage remarks, that these terms signify certain *nadis* viz., Pingala, Susumna, etc. For this the sage has the authority of Brahmana literature. To the Pundit the statement of the Swami affords a hook on which to hang his theory of a mountain in the human system. When rivers, he asks, have been admitted into the human body, why should not their source the Himalayas (without which they should run dry)? Why not, pray, their mouth,

the sea into which they enter? The difference between the conceptions of the Swami and those of the Pundit is fundamental. Both deal with terms common to Arsha books and the Puranas. To the Swami their significance in Arsha books is primary. The meaning attached to them either in the Puranas or in the later Sanskrit books of modern times is secondary. The Pundit's line of procedure in the interpretation of such terms is just the reverse of the Swami's. If the Ganga of the Veda were primarily the river Ganges, and secondarily used, in the way of a metaphor, to signify the human *pingala*, we should have readily admitted the plea of the Pundit. The mountain and the sea could have been gulped down as was the river. The difficulty is that the meaning in the Veda is primary, and the designation of the river is secondary. Thus Dayananda, instead of helping, is a great bar in the way of the Pundit's exposition.

This, gentle reader, was my principal objection to the exposition of P. Satwalekar. I put it first, and emphasised it in both my original criticism and my later review. He, for what reason he himself knows best, has given it the last, as also the least, consideration.

In order that the main issue may not again be obscured, which, the Pundit will pardon me for saying, has somehow been the case in his former explanations, I waive, for the present my other objections to his exposition. In the light of his answers to those objections, I shall study the Upanishada again, and shall see if his meanings fit in with the context. If they do, I shall candidly confess my acceptance

of his point of view, In case, however, they do not, I shall state my case fully in a separate article, which, to do the subject full justice, will evidently then be necessary.

The reason for my emphasising my first point with such force is that I regard the introduction of Hatha Yoga dogmas into Arsha books an innovation of doubtful legitimacy. The Pundit,

I think, should think twice before he enters on a task so tremendously delicate, a task, the consequences of which, for good or for evil, are bound to be far-reaching. I am, however, open to conviction and shall bow to the Pundit's learning if he brings in, to support his contention, evidence that satisfies me.

CONTEMPORARY THOUGHT REVIEWED

THE VEDA AND WOMAN LABOUR.

The Veda enjoins that man shall be the bread-winner of the family and that woman shall look after the affairs of the household. For the successful performance of the functions entrusted to her as mother, her staying at home for the greater part of the day is necessary. Even when there is need of supplementing the wages of the husband, she may take to those industries which do not necessitate her absence from home. The world of to-day is, however, bent on violating these salubrious laws, and with what consequences ? Writes Mr. Aiyar to *The Mysore Economic Journal* :—

Want of adequate home life, complete absence of intellectual leisure and precepts of religion, constant care and worry of poverty and sickness of ill-cared children or self, and finally long hours of work in insanitary and ill-furnished places, tend to smother the intellect, weaken the physical frame and destroy the higher instincts.

What this has been costing us, in our national life, can only be gauged by in-

stituting a survey of the physical, moral and domestic conditions of our work women.

Statistical study, at any rate in U. S. A., has shown that long hours of work affect the health of the women and eventually the health of children. Thus it affects both the present and future generations. Primarily the cause of this is the physiological and psychological fatigue of a day's monotonous work. Exhaustion and impaired health and low vitality follow fatigue in order and the physiological is replaced by the pathological and ultimately death may ensue." This has been actually the state in many of our labour families, where sickness and death are constant visitors. Furthermore this fatigue and impaired health leave their lasting mark of physical and mental weakness on the future generations.

One deplorable feature is the utter disregard for the well-being of the babies of working women. Wherever women work, one can see young babies consigned to the mercies of the elements helplessly lying on the lap of mother earth. Again it is also a common sight to see young babies left in charge of inexperienced boys and girls while the mother is away for work. This has been

the cause of untold misery both of the mother and the child, and invariably of infant mortality among labouring classes. It is no wonder that a high percentage of the babies, devoid of the tender care of the mother, under-nourished and exposed to all the hazards of insanitary surroundings perish young.

Continuous standing or sitting in inconvenient seats has an injurious effect on the health of girls and women, especially of expectant mothers. Seats improperly adjusted for work or crude and rough make-shifts for seats are as good as having no seats. Many operations which women do standing, at times as long as 8 to 10 hours a day, could as well be done with properly adjusted work-table and chair. For women who move about or carry things here and there, certain amount of leisure and rest space should be allowed. Want of lunch and rest room is another hardship on workers. Any one who visits a factory or mill premises at the recess period can see hundreds of men and women squatting in the open, eating their scanty hurried lunch. It looks as though the employer cares nothing for the bodies of his workers. Without proper food and adequate rest how can the labourers maintain their physique, their health and working efficiency? The employers would answer that it is no concern of theirs and if the workers become inefficient they will turn them out. The unreasonableness of such an argument is obvious. To employ labourers, to pay them inadequately, to provide them no human comforts, to drive them to hard work and finally to dismiss them when this very process tells upon their health and efficiency is at once cruel, and unjust.

Again every employee would wish to have a bath, especially those working in hot dirty places. For the good of the workers as well as for the good of the community this must be provided.

Instances like these can be multiplied. But the above are enough to show how

the neglect of this phase of industrial welfare has been the cause of so much misery and mortality among the poor workers. But it is all the more serious from the point of view of women. Their unique physiological conditions, their maternal functions and their delicate constitution demand a minimum of comforts and a fair standard of working condition, without which their unique functions are affected and the coming generations sacrificed.

SOUL AND MATTER.

EASTERN AND WESTERN BELIEFS.

The Editor of *The Quest*, in the course of an article appearing in the above journal, latest issue, makes a few very interesting observations as regards the nature of soul and matter and on the passage of the former through a chain of lives, which observations clearly show his leanings to the Vedic doctrines. He differs from us in some details, but how firmly he grasps the theories enunciated in the Darshanas gives us infinite pleasure.

But if we question the religious tradition of the Western world, the faith of Christendom, and ask: Whence do we come?—we find ourselves confronted with an answer that practically slams the door in our face. Behind that speck of protoplasm, we are asked to believe, stands the unmediated mystery of an instantaneous creation, a miraculous event, an utterly new factor for ever being inserted into the world-order. God immediately creates the soul of every child born into the world. This soul has no prior history; it was not, and suddenly is evoked from nowhere and nowhen. It is an absolutely immediate creation flashed forth for existence in the temporal material order, bound to a cellular bodily process in one of innumerable possible conditions of favourable or unfavourable heredity and environment. Moreover,

this inexperienced soul is held to be morally responsible for every deed, though it has had no choice whatever as to the task apportioned to it. But if this immediate creation theory is true, and every soul is accounted equally responsible by God for the conduct of its life in such disparate embodiments and conditions, then, if justice is to obtain, it can hardly be supposed that all souls are created with equal moral capacities. The tasks assigned to them are glaringly unequal; it manifestly requires far more ability and virtue to make music out of an instrument with broken or rotten strings than out of a well-strung one. For justice to obtain,—and none but a moral God can win our worship,—the souls must be endowed with abilities proportionate to the tasks they are set to perform; it follows logically that the more imperfect the body is, the more unfavourable the environment, the better endowed should be the soul. Souls then cannot be created equal; nor does the theory of traducianism help.

But apart from the enigma of the origin of man's soul as thus formulated by Christian theology, there is the problem of its future state when death claims the body. In this Christianity shares the most common persuasion of all the great religions, and sets forth a doctrine of future rewards and punishments, of happy and unhappy states, determined by the deeds done on earth. Indeed on no other supposition is it possible in any way to attempt a theodicy; for justice is not to be found here in the life-history of any mortal. Christian doctrine further holds that the soul of man, not only survives for a time, but perdures, is indestructible throughout all time.

Now when we talk of the pre-existence and post-existence of the soul, we do not mean the simultaneous eternal life of spirit which is the essence and not the existence of the soul. Spirit is immediate and perpetual life in itself, divine creative potency; spiritual life determines and is not determined by existence in time.

Pre-existence and post-existence are temporal concepts, and apply only when the soul is envisaged as involved in temporal limitations. Moreover time proper, as real duration, is a psychical and not a material order of existence. In one state of embodied existence the soul may live a few years, as reckoned by our conventional space-defined body-time scheme of reference, in another state perchance an æon of such years. But time for the soul is not measurable in this mechanical fashion.

Is the soul again to be conceived of as dependent solely on the physical organism for its experience of sensible existence? I venture to think it is far otherwise. The senses are not body-powers; the physical organs of sense are limitations to the sense-powers of the soul. Physical embodiment limits their activity to a special field of reference, and in so doing deforms reality. Our normal experience here is determined by a physical instrument that gives the innate powers of the soul comparatively little scope, and makes us the slaves of a mode of time and configuration of space that is exceedingly restricted.

But further, when soul is free of the physical body, is it to be conceived of as an utterly bodiless entity? By no means. The commonest persuasion of antiquity, confirmed in our own day by a wealth of facts which are now being methodically observed and analyzed by psychical research, make it clear that survival is still in an embodied state; there is a subtle embodiment of the soul 'within' the physical organism, here and now, and this condition persists when the outermost physical carapace is stripped off. In speculating on this immensely important factor in post-existence the philosophy of antiquity formulated a doctrine of subtle bodies of various degrees or orders, issuing from a principle of embodiment which was as it were the originating seed-ground of all the vehicles of consciousness used by the soul in whatever regions

or states it might chance to have its existence, during its circlings in the ever-changing flux of becoming in the universe, visible and invisible.

Both in the East and the West (apart from the Jewish-Christian dogma of immediate creation) the doctrine of the post-existence of the soul, and therefore of its pre-existence, for both Orient and Occident were equally logical in this respect, was a question which involved a series of transmutations of an *embodied* life or soul, and not simply the adventures of a naked spirit minus a body of every conceivable kind.

It will be said by many that this is an extremely materialistic doctrine. It depends, however, on what we mean by matter. The idea of matter may be conceived of as increasingly dynamic, energetic, capable of sublimation to an incalculable degree, to its very prime in protyle,—perchance in light. Matter is an integral factor of the whole sensible universe, visible and invisible. The sensible universe is not only the show of things we perceive through our earthly, dense, gross or crassified physical organism; it is rather a system of worlds within worlds, of orders within orders of existence, of ever rarer, more delicate and more subtle ranges of aesthetic apprehension. Therefore at the back of a speck of protoplasm there are not only life and mind, which are not of the material order, but a series of subtle material dynamic schemes, force-systems or frames as it were, a conditioning chain of determinants governing the evolution of the physical germ. The soul is conceived of then, in this theory, as witness of a continuous process of 'descent' or condensation or externalisation of embodiment before its coming to be here, and a corresponding 'ascent' or sublimation-process in reverse order after it gets free of its earthly dwelling. Transcorporation in its simplest form may thus be thought of as only one circling of this nature. Man as spirit is conceived of as one with eternal reality, logically prior to all

psychic conditioning in time and material embodiment in space, however manifold the modes of such conditioning or the moments of the genetic process or ways of becoming may be thought to be. Within the great process of things soul and body are a concrete duality in unity changing without as to body quantitatively and changing within as to soul qualitatively. The soul is the continuum that organizes and stores the experiences of the body-changes.

DRUID VISION OF ONE IN MANY AND THEIR BELIEF IN RE-BIRTH.

Eva Martin, writing to the Theosophist for August 1923 has the following observations as regards certain poems and beliefs of Druids which have come down to their descendants:—

But, from a mystical philosophical point of view of still greater interest is the ancient song of the Druid Amergin, composed when first he set foot upon Irish soil. Though there is no date to this poem, and no genuine proof of authorship, it has been said by William Sharp that these are probably "the oldest surviving lines in any vernacular tongue in Europe, except Greek". He sang.

I am the wind that blows upon the sea, I am the ocean wave; I am the murmur of the surges; I am seven battalions; I am a strong bull; I am an eagle on a rock; I am a ray of the sun; I am the most beautiful of herbs; I am a courageous wild boar; I am a salmon in the water; I am a lake upon a plain; I am a cunning artist; I am a gigantic, sword-wielding champion; I can shift my shape like a god.

An almost exactly parallel passage can be taken from the Welsh bard, Taliesin:

I have been in many shapes before I attained a congenial form. I have been a narrow blade of a sword; I have been a

drop in the air ; I have been a shining star ; I have been word in a book ; I have been a book in the beginning ; I have been a light in a lantern a year and a half ; I have been a bridge for passing over three-score rivers ; I have journeyed as an eagle ; I have been a boat on the sea ; I have been a director in battle ; I have been a sword in the hand ; I have been a shield in fight ; I have been the string of a harp ; I have been enchanted for a year in the foam of water. There is nothing in which I have not been.

One finds it interesting to compare both of these with similar passages in the *Bhagawad-Gita* (as rendered in Dr. Annie Besant's beautiful prose translation) :

I the sapidity in waters, O son of Kunti,
I the radiance in moon and sun ; the Word
of Power in all the Vedas, sound in ether,
and virility in men ; the pure fragrance of
earths and the brilliance in fire am I ;
.....of purifiers I am the wind ;
Rama of warriors I ; and I am Makara of
fishes, of streams the Ganga am I
I am the gambling of the cheat, and the
splendour of splendid things I ; I am
victory, I am determination, and the truth
of the truthful I Of secrets I am
also silence ; the knowledge of knowers
am I.

Truly, it is passing strange, as Mr. Squire remarks, "to find Gael and Briton combining to voice almost in the same words this doctrine of the mystical Kelts, who, while still in a state of semi-barbarism, saw, with some of the greatest of ancient and modern philosophers, the One in Many, and a single Essence in all the manifold forms of life." Another poem, which enunciates the same doctrine, is sung by the great sea-god, Manannan ; but perhaps of all the writings of an occult nature that remain to us from these ancient sources the most interesting is this fragment of unknown antiquity from *The Black Book of Carmarthen*.

THE SOUL.

Soul, since I was made in necessity
blameless,

True it is, woe is me that thou shouldst
have come to my design.

Neither for my own sake, nor for death,
nor for end nor for beginning.

It was with seven faculties that I was
thus blessed.

With seven created beings I was placed
for purification ;

I was gleaming fire when I was caused
to exist ;

I was dust of the earth, and grief could
not reach me ;

I was a high wind, being less evil than
good ;

I was a mist on a mountain seeking
supplies of stags ;

I was blossoms of trees on the face of
the earth ;

If the Lord blessed me, He would have
placed me on matter.

Soul, since I was made.....

Strange and obscure, yet curiously sug-
gestive, this has the ring of true poetry,
and the note of deep human feeling. It
seems that the poet, overcome by a sense
of the sadness of mortal existence, addres-
ses his soul, with the feeling that to it he
owes his capacity for sin and suffering.

"Woe is me that thou shouldst have come
to my design.....I was dust of the
earth, and grief could not reach me ; I
was a high wind, being less evil than
good." It is much to be regretted that
the rest of the poem should have been
lost.

The ancient Kelts seem to have had a
very strong sense of the importance of
names—even to have held the theory that
the name and the soul were one and the
same thing. Several instances of this
could be cited, and it is a fact which may
particularly interest those who read Mr.
Algernon Blackwood's remarkable story,
The Human Chord, in which the practice
of calling things and people by their
"true names" was made use of with such
potent effect.

In *The Voyage of Bran* (Vol. II) by Mr. Alfred Nutt, will be found a very interesting chapter on "The Keltic Doctrine of Re-birth." This writer, however, does not think that the Irish doctrine had any connection with a belief in the life of the soul as distinct from that of the body or even that the doctrine shows any signs of philosophic or religious colouring. Mr. Squire seems to take a different view. He quotes Cæsar, who, writing of the Druids, remarks : "As one of their leading doctrines they inculcate this : that souls are not annihilated, but pass after death from one body to another, and they hold that by this teaching men are much encouraged to labour, through disregarding the fear of death." This reminds us of what Lafcadio Hearn says of the similar belief of the Japanese : "Its promises for future births and its fearlessness about journeying to the Meido, whither one travels with just a little tear or two only."

INDIAN MUSIC.

Mr. M. S. Ramaswamy Iyer contributes the following to the *Hindu* :-

Lord Sydenham, an ex-Governor of Bombay, addressed the students of the Bombay, Gandharva Mahavidyalaya thus : "In the direction of harmony, the West has gone much further than the East and is still moving. It is in the structure of its harmony that the western music is more complex than the eastern. This difference of musical taste, however, it may have arisen, has an important result in the absence of concerted music in India. The co-operation of large numbers of voices or of instruments in producing a joint effect of powerfully reacting upon performers as well as audiences cannot find a place in the musical education of Indian people. India cannot adequately realise the exaltation of spirit, the excitement and the vivid impressions which are created by the noble choruses of a Handel's Oratorio, by the symphonies of the great European masters and even by the choral singing of a regiment on the

march or of a gathering of Welsh holiday markers. I confess to my mind ; this seems to be a want in the music of India."

The late lamented Sir, T. Muthuswami Iyer, High Court Judge of Madras diluted the Lord's one-sided opinion in his own characteristic way : "By mutual contact, both the systems (European and Indian) may gain from a scientific point of view," Tartini loved Harmony ; Rousseau loved Melody ; while Burney wavered between the two. In this doubtful condition, to which of these two—Melody and Harmony—should India give the palm.

DIFFERENCE BETWEEN MELODY AND HARMONY.

But what is meant by 'Melody' and 'Harmony'? That we must first understand. The vital point of difference between the two lies in whether the notes in a given octave are produced successively or simultaneously. In the former case, you have 'Melody' ; while, in the latter, you have 'Harmony.' Touch for instance 'Sa-Pa-Sa' successively and you get a melody. But touch the same simultaneously and you get harmony. Melody can be produced by one voice, while harmony can be produced only by two or more voices. Melody encourages individualistic music and asserts the superiority of voice over instruments ; while harmony leads to concerted music and drowns the voice in the ocean of instruments.

Mr. H. B. Krishna Row, B. A., of Mysore gives us two happy illustrations to bring home, even to the minds of children the real difference between melody and harmony. "When a feeling agitates a person, it exhibits itself by means of a continued voice, which is only a flow of a single sound varying in pitch here and there. On analysis, it will be found to resemble a chain of single notes, which succeed one another. It is impossible that at the same time two notes can sound together ; for, in melody which ex-

presses the feeling of the heart, single sounds succeed one another. But when a person stands on the shores of a mighty ocean, a feeling of grandeur enters into his heart. The waves beat against the shore in rapid succession; various birds hover over it here and there with their sweet sounds; the hissing of the wind and the bustle of the people add a charm to the scene. What kind of music can express the feeling thus aroused? It is only the harmony of the West. One instrument expresses the splashing of the waves; another represents the cries of the birds; and a third expresses the sounds of human voices. All these sounds, though each varied in intensity in its own course, proceed simultaneously and constitute music which is termed "Harmony in the West."

INDIAN AND EUROPEAN MUSIC.

Let us now turn to what others have said about the matter. "Indian music," observed Mr. T. A. Ramakrishna Iyer, an ex-Sub-Judge and Chairman of the Reception Committee, Dakshina Sangitha Conference, Palghat of May 1923, "is like the Pacific Ocean, passive, calm, and serene; while European music is like the Atlantic Ocean, stormy, aggressive and boisterous." It is true that the Panama Canal has connected both the oceans. But has it changed the nature of the two waters? Again, " Indian music," observed Tagore, " is like night, pure, deep, and tender; while European music is like the day, a flowing concourse of vast harmony, composed of concord and discord and many disconnected fragments. They both stir us; yet, the two are contrary in spirit. But that cannot be helped. At the root nature itself is divided into day and night, unity and variety, finite and infinite. We Indians live in the realm of night and we are over-powered by the sense of the One and Infinite. Our music draws the listener away beyond the limits of everyday human joys and sorrows and takes us to that lonely region of the soul which

lies beyond the phenomenal universe while European music leads us to a variegated dance through the endless rise and fall of human grief and joy."

You will now be in a position to understand that an Indian mind is meditative while a European mind is demonstrative; that the mind impression affects an Indian, while the sense impression affects a European; that melody comes from the mind impression while harmony comes from the sense-impression; that melody lets emotion out, while harmony lets emotion in; and that, finally, harmony causes emotion, while emotion causes melody.

HARMONY IN INDIAN MUSIC.

Lord Sydenham regrets that harmony is still a want in India. But is not melody still a want in Europe? Why is he more anxious to thrust harmony into India than to take in melody into his own country? This is, however by the way. Let us seriously consider whether we really want harmony. In a sense we have it already. "Hindu music," observed S. N. Tagore, "is not devoid of harmony even in its limited sense and the first note, when sounded ever blends readily with successive notes into a harmonious relation so as to create pleasure." But the idea of harmony in Europe is the practice of singing by different persons with different instruments, as Soprano, alts, tenor bass etc. sometimes mixed up with a thunder here and the warbling of birds there. Do we want that kind of harmony? That's the question.

Mr. Fox Strongways has given out his opinion that from the point of language and climate, Indian music is too partial towards the dry, angular and curveless music of the West, with its pretended Harmony which is after all artificial." Mr. Krishna Row confirmed Mr. Srinivasa Iyengar when he observed: "The element of harmony of the west is present in nature more where

there is discord than concord. Absence of proper illustrations from nature of the existence of harmony for the expression of internal emotion strengthens our view that it is only a work of artificial innovation." He then proceeded to explain why such an artificial harmony became so popular in Europe. "If we analyse what charm there is in cricket, chess, cards or the paper-chase, we shall find how, even with materials which are by themselves totally void of any higher purpose, artifice can weave a web of imaginative pleasure and attract a host of admirers. When we see how fortunes are staked on the results of Cricket matches and how intoxicated are players while engaged in cards, is there any wonder that harmony should find a large number of supporters?"

I, for one, would suggest that the Indian musician may learn harmony of the West as a matter of curiosity but, ever keep it distinct from the Indian system wherein it should never be ingrafted. I would further inform Lord Sydenham that he and others of his ilk cannot adequately realise the exaltation of spirit, the excitement and the vivid impressions which are created by the noble songs of Thiagaraja, by the stirring kirthis of Dikshittar, and even by the choral songs of Gopalakrishna Bharathi—all being fortunately untainted by "the most artificial and pretended harmony,"

POMPEII RE-EXCAVATED.

An Italian named Spinazzola has been long engaged in excavating the long forgotten Pompeii, the town that lay under the ashes of Vesuvius, according to his new methods of disinterring ancient remains without destroying or disfiguring them. His discoveries have given a rude shock to the theories formed as regards the life and culture of the ancient Romans by archæologists that have preceded him

The following are a few extracts from an account of the new excavations given in the New York *Times* by Arnold Curts, excerpts from which are reproduced in the *Literary Digest* for July 14th, 1923 :—

"The writings and reconstructions of studious and competent archeologists, such as for instance, Augustus Mau, had led one to expect streets in which the houses had no external windows—only a door and, perhaps, a few barbicons—in which balconies were rare; in which, in other words, houses were nothing but big boxes with roofs leaning towards an inner court, into which the only windows of the house opened. Even the existence of second floors was considered problematical or, at any rate, very unusual.

"But then one sees the 'Street of abundance'! Two-story houses everywhere, with far projecting balconies and windows, windows everywhere. Windows with iron gratings on the ground floor, windows with marble or stone frames, carved or plain, white or colored, windows to suit all tastes. Balconies and loggias, large and small, with graceful pillars or without, here, again, to suit all tastes. And paintings, and shop signs, and posters, and scribblings on the walls. Everything is still there."

"The luxuriousness of the bathrooms is amazing. In one case two rooms compose the bathing suite. One is the 'apoditerium' or changing-room, and the other the 'caldarium,' or bathroom proper. The caldarium had its walls and floor made of special hollow bricks, through which hot air circulated.

"All the rooms are magnificently decorated. Frescos adorn all the walls, from cellars to the outside of the houses, and with such a richness of colour and such a vividness of tone as to leave one gasping. The paintings generally divide the walls into panels, on each of which is represented a scene of movement. Bet-

ween the panels are festoons of flowers and fruits. The Hellenic influence of Pompeian art is very noticeable, especially in the frescos, a majority of which represent scenes from Homer's 'Iliad'. A very interesting and hitherto unknown architectural characteristic has been discovered in the most recent excavations. The roofs of the houses were made of tiles and did not end flush with the sides of the walls, but overhung by the length of several tiles, thus affording the sidewalk protection from sun and rain. By this discovery significance has been given to the Latin word 'pluma' which is often found in Latin writings, always in connection with houses and walls, but whose exact meaning had hitherto remained unknown. Obviously 'pluma' means a projecting cornice, whose object was similar to that of the canvas awnings which protect modern shop windows from the fierce rays of the sun."

"These shops had signs outside, which by their variety and bright colors sought to attract the attention of the passers-by. These signs were works of art and were, apparently, constantly being changed. A dyer's shop has on both sides of the door two of the most wonderful frescos in Pompeii. On the left there is a temple of yellow marble, from which Mercury (the god of commerce) steps out hurriedly (as can be seen from his flowing robes) carrying in one hand his sacred rod and in the other a bug. On the right there is a wonderful picture of Venus standing on a royal chariot drawn by four immense elephants. She is clothed in a cloak, blue as the sea she was born from, and on her head she wears a high golden diadem. The vividness of the colors and the technique of the execution are amazing. These frescos, now valued so highly, were in those days nothing but ordinary shop signs, which would be changed as soon as they became soiled by passers-by rubbing against them or scribbling on them. A coat of whitewash was applied and a new fresco painted on top."

"Two more particularly interesting frescos appear outside the shop of a man who, not being a Pompeian but a Roman and apparently very proud of it, pointed, the fact out by adorning his shop with a painting of Romulus, the founder of Rome on one side, and of Aeneas, the chooser of the site where Rome was built, escaping from Troy with Anchises and Ascanius, on the other. Similar paintings are found outside all shops, varying in beauty and artistic value."

"Another discovery of great value is a public laundry in perfect state of preservation, which had just been completed when it was engulfed in the general ruin which overtook Pompeii. That it had only just been completed is proved by heaps of mortar and stone masons, instruments which were found on the side-walk outside. Here are cisterns and tubs of all sizes and shapes, with an extremely ingenious system of water piping."

EVOLUTION IN ITS LATEST PHASES.

Commenting on a book, named 'The Laws of Life,' by Prof. William N. Goldsmith, Wilhemien E. Key writes in *Good Health* :—

Before considering the meaning of evolution, 'it may be well to emphasize the fact that it neither eliminates God, nor does it teach that monkeys are the ancestors of men.'

If this is the considered opinion of an advocate of evolution, we wonder what doctrines the theory of evolution now stands for. When the animal heredity of man is rejected, the most offensive and perhaps most presumptuous part of the theory is renounced. There remains only gradation in the animal kingdom, gradation in respect of the complexity of the physical construction, and of the efficiency of the intellectual powers, of animals.

A new evidence in support of the theory of evolution, qualified as stated above has been found.

"The general scheme of animal relationships is then taken up and the long path from ameba to man is outlined with a remarkable fulness of illustration. Evidences of the organic relationship of animals are recounted as shown by certain blood tests which have been receiving considerable attention in recent years. The blood consists of corpuscles floating in a serum. On mixing the blood of animals, it was found that the serum of one animal's blood sometimes destroyed the corpuscles of the other animal's blood, and at other times did not. As the experiments were multiplied it was found that the amount of destructive action exercised by one specimen of blood upon another was in direct proportion to the nearness or remoteness of relationship between the animals. If the animals are closely related, there is no disturbance when their blood is mixed; when they are not closely related, the serum of one destroys the corpuscles of the other and the intensity of this action is proportionate to the remoteness of the relationship. These tests have been further elaborated and all tend to confirm the first results. On both tests it has been found that the blood of man and of the anthropoid ape behave in a way to indicate they are closely related, while the relation is more remote in the case of the monkeys and the lemur. Thus the evidences for evolution from the fields of anatomy, embryology and fossil study are receiving strong additional support from the field of physiology."

PHYSICAL CULTURE FOR INDIAN GIRLS.

Women require exercise as much as do men, though not one of the same sort. Through false modesty, however though we have course and systems of exercise for our boys and men, our

girls and women we leave to mere chance. It is very seldom that one comes across a scheme of drill and physical culture devised for the exclusive benefit of the tender motherly sex. In the pages of the *Welfare*, August number, there appears an article by St. Nihal Singh, embodying his observations of the workings of a method in vogue at Prof. Manek Rao's *akhara* at Baroda. Its chief recommendation is that the exercises it comprises are Indian—their names, their commands and the plays themselves.

The girls, sometimes even, sometimes odd in number, stood in a row, at the head of which was Shushila, a daughter of Pandit Atma Ram, the Arya Samajist who for many years has been in charge of the schools and boarding houses for "untouchables" in Baroda. She had the advantage of five years' training, and acted as leader. They called out their numbers, at her word of command, spoken in Hindi, "ek" "do", "tin", etc. Professor Manek Rao has invented these commands and unless an Indian has become hopelessly denationalised, he is bound to admit that they are no less forceful than those uttered in English.

Then, one after the other, they performed the exercises and played the games taught them by Miss Sheikh. Sometimes they used Indian clubs, sometimes light lathis, sometimes no apparatus of any kind. Though they had very little experience, most of them being beginners, I was struck with the facility with which they performed the drill.

The first game they played was known by the Marathi name of *Kombada*, which means "cock." They squatted in a line, hugging their knees, with only their feet touching the ground, hopped about like cocks ten times, backwards and forwards.

Then they played "double *Kombada*." Two girls sat in a squatting position, close

together, one behind the other, with her arms around the limbs of the girl in front of her. In order not to disturb the harmony of their movements as they hopped about, the players had to balance each other with their bodies, a feat difficult to perform.

A third variation of this game was *Oodat Kombada*, one girl stood, and the other squatted in front of her clasping her arms about her limbs. Both then hopped together.

The girls next played *Jimma*. An even number of girls stood facing each other in two rows. Each clapped her hands together three times. Then those in both rows took a short jump to the left and clapped once, after which they jumped to the right, and again clapped once, and resumed the first position, clapping once as they did so. Finally the girls in the two rows clapped each other's hands once. This completed one movement. For the succeeding movements, which numbered ten, the first three claps introducing the game were omitted.

How many variations they gave to *Jimma*! The girls stood in a circle, clapping first the hands of the one on the right, then of the one to the left. Again a double circle was formed, one within the other, in which case, after clapping the hands of the girls on either side, those in the inner circle whirled around and clapped the hands of the girls in the outer circle with whom they found themselves face to face.

When I met Miss Sheikh, a few days after I saw this performance, I asked her how she began to give instruction. She replied that if the pupil is a grown-up woman capable of concentration, she is first taught various *asans*, or yogic postures, both sitting and standing. She generally begins with *tolasan*, sitting in yogi-fashion, with the palms resting on the ground, and lifting the body up and down. This exercise is varied by swinging the body backward and forward, and

in that case popularly known in Maharashtra as *parana*.

Another of the *asans* modified into a game is *padasan*, known as *adya bai*. The pupil stands on one foot, while the other foot is pressed against the opposite leg, just above the knee. Then she makes motions, with her clenched fists, as if she were drawing water.

After the *asans* have been mastered, the pupil is taught advanced exercises. Great care is taken to prevent them from straining the body or mind, effort being made to develop the muscles gradually.

Young girls generally begin their physical culture training by being immediately introduced to games, of which there are two score, so varied that between them every part of the body is exercised.

A game which has great possibilities as an exercise is *Gof*, which according to tradition, has been popular in India since the days of Krishna, who played it in company with the milkmaids of Brindaban. It consists of twisting and weaving several ropes of different colours together so as to make one cord. Strings or pieces of cloth are hung from the centre of the ceiling or from the branch of a large tree. The players each holding one of these loose strands, stand in a circle beneath the central point. The particular form of the twist which the woven cord is to take is fixed upon beforehand, and this determines the movements of each of the girls, who sing a merry chorus as they move about, rope in hand, taking their appointed places in turn, so as to give the proper twist to the cord that is being woven. The many-shaded strands and bright-hued dresses and the graceful movements of the children, who sway their bodies and arms in time with the songs they sing, produce an extremely picturesque effect.

Girgir-Masa, or "whirling fish," is another popular exercise. The girls stand in

a circle, a short distance apart, and, at a given signal, each begins to spin round and round.

One of the games by which Miss Sheikh sets great store is a sort of dance. The girls stand in a circle, and with a slight skipping motion, at each step, move round, shading the eyes with the hand and looking into the distance, first with the right hand, turning to the right, then with the left, turning in that direction. This game provides exercise for the whole body, from head to foot.

Another game greatly valued as a physical exercise is known as *Pimpalpan*, and is meant for girls of eight years old and above. Any number, odd or even, may play it. After forming in line and counting their numbers the leader sings a song to the effect that "we should play the game of *Pimpalpan* and be healthy." This song is then repeated by the others. After that they form a circle, all facing the centre place their hands on their hips, and stand with their heels together at an angle of 45 degrees. Nine feet of circumference is required for each one, so her hands may be stretched sideways without interfering with her neighbours. The leader then says "Pim-pal-pan," in three distinct syllables, which is a signal for the girls to stand at attention, breathe in and slowly stretch their hands over their heads, with the palms outwards, the two thumbs touching, the remaining eight fingers closed, the space between the two hands forming the figures of a leaf of the *Pimpal* tree. This function is held for a few seconds, then, slowly breathing out, the two hands are dropped until they touch the thighs. This movement is repeated twelve times. As a variation, the movement is repeated quickly 24 times, jumping sideways, leaving a space of twelve inches between the two feet. The leader counts the movements, and, when she says "a—ram" in two distinct syllables, the game is stopped, and the girls form a straight line as at the beginning. They then fold their

hands, say "namaste" to the senior girl and disperse.

In addition to the games employed for in-door drill, Miss Sheikh encourages her pupils to take part in the more strenuous games played out-doors, like *Oon-oon-savli*, *aty-a-patya*, or *kho-kho*, which are also played by boys.

THE RUINOUS EFFECTS OF POLYGAMY

S. Khuda Bakhsh, M. A., in the course of a learned contribution to *The Calcutta Review* for August 1923, thus rues the effects of polygamy among Abbasides:—

If these were the effects of polygamy on political and economic conditions no less catastrophic were its effects on the social and moral life of the people. We early called attention to the fact that gradually a great change was effected in the view regarding purity of descent. While in Arab antiquity a high value was placed on nobility of descent on the woman's side; later this was completely ruled out of consideration, with the result that no check or restraint was left upon indiscriminate polygamy. A degenerate and effeminate race of bastards thus came into being, with neither courage nor ability to maintain the high traditions of their fathers. Polygamy, in short, degenerated into the rule of mistresses and courtesans. It destroyed well-regulated family life, and let in a flood of evil effects. There originated the fatal germ of decay and death which stole into all Mohamedan States. In the Oriental courts of the middle ages—in Baghdad, in Cordova, as also elsewhere—polygamy steadily sapped the moral strength of the people. Imagine an old Oriental *harem*, with its countless inmates—wives and sons and daughters and the rest of them—and its poisonous atmosphere of hatred, distrust and suspicion. What impression would the ambitious and intriguing wives make

upon youthful, pliant minds? Indeed, the more numerous the family, the less was the love of the father for his offspring. They grew up in a hateful *environ* of ever-warring, wrangling wives. Each saw in his brother an unworthy, evil-minded rival. If one ascended the vacant throne—the rest banded themselves together against him—seething with one thought; namely, his fall, and stirred by one ambition; namely, to seize the throne for himself. In the earlier days when only the child of a noble-born lady was looked upon as a legitimate successor, a wholesome restraint existed which obviated fratricidal warfare. But soon this principle was a thing of the past, and all—regardless of birth—pressed forward an equally valid claim. To polygamy are clearly traceable the numerous fratricides, insurrections, and disputes over succession which disfigure and dishonour Oriental history.

THE CRUELTY OF HAREM LIFE

Further on, the same writer commenting on the immoralising tendencies of *harem* life, says :—

What made love-affairs so tragic in the *harem* was the fact that, though opportunities were only too plentiful for slaves to love and to be loved, yet there never was a hope nor a prospect of peaceful union or a happy termination. As a rule discovery drew upon the guilty couple the unmeasured wrath of the master, and meant, generally death for one or the other party—perhaps of both. Rare was an ending so exceptional as in the following case, The Caliph Mahdi, being informed that a young man had managed to get into the room of a slave-girl, straightway sent to her room where a youth of attractive appearance was found. Forthwith he was taken to the Caliph, and the following facts came to light. The slave-girl belonged to his mother, and an attachment grew up between them. She was sold to the *harem* of the Caliph, and the youth staked his very life to see

her, for without her he could not live, and he thus sought peace in death. The Caliph ordered twenty stripes. He bore the punishment with complete self-possession, and only said when it was over—'Never so long as I live shall I renounce my love for her.' This lashed Mahdi into fury and he sent for the executioner. Even this left the youth undeterred. He seated himself on the leather carpet on which executions took place, and cheerfully awaited the fatal stroke. Only he begged permission of the Caliph to speak to her. When this permission was given he recited a verse which emphasized his undeviating love for her—torture and death notwithstanding. Mahdi kept silence for a time. Then tears flowed from his eyes, and he ordered the lovers to leave the place and go their way.' Such indulgence was exceptional, for jealousy, when once aroused, transformed the Arab into a blood-thirsty monster, and the life of a slave was to him of not the slightest moment of consideration. Although the jurists in their learned theories propounded that the life of a Muslim slave, was as valuable as that of a freeman, this view never really obtained wide acceptance—certainly never within the walls of the *harem* which, shut off from the outward world, impenetrable even to the police, was ruled by a despotic master or mistress, who, untroubled and unrestrained, dealt summarily with the question of life and death.

UNNATURAL LOVE, A PRODUCT OF HAREM LIFE.

A vice more condemnable still, for which *harem* life is responsible, is unnatural love between members of the same sex. Says the learned and judicious writer :—

To the degrading influence of the *harem* system must be ascribed a vice, which more than any other, has contributed to the deep decay of morals and the inevitable loosening and dissolution

of the family tie in the Orient. It was unnatural love—for this poisonous plant grew and thrived on the soil of the *harem*. In the houses of the rich and powerful hundreds of young people were forced to live together. Relations between the sexes were as free and gay and easy for the rich as were well-nigh impossible for those that were not free and independent. Moreover, offences against chastity were brutally punished, though indifferent was the moral tone, and lax and shameless was the talk regarding matters sexual in high circles. Thus, to escape punishment, unnatural love grew up between slaves of the same sex. While fear of punishment accounts for the introduction and growth of this vice among the slaves—a very different reason explains

its progress and diffusion among the rich. The wealthy debauchee, enfeebled and sated with the enjoyments of the *harem*, looked for new diversions and gaieties, and found them in these revolting practices.

To S. Khuda Bakhsh love-poetry addressed to males appears to be a concomitant of unnatural love. Among early Arabs, he says, such love was not known, and in evidence, he cites the testimony of *Kitab-ul-mowashaha* as follows :—

The author of the *Kitabul-mowashaha* says (Fol. 102) : "I know of no ancient Arab poet who, in his poetry, ever thought of singing the praises of other than women."

Panini and the Authorship of the Unadi Sutras.*

(BY PROFESSOR K. B. PATHAK, B. A.)

The authorship of the Unadi Sutras has been discussed by many distinguished European Sanskrit Scholars. Prof. Max Muller and Dr. Aufrecht maintained that these Sutras were anterior to Panini, while Goldstucker, in his very elaborate study of Panini, contends that this Grammarian composed only a list of Unadis but that the Unadi sutras as we have them, were the work of some later author. It may also be mentioned here that Vimala, a writer not later than the thirteenth century, claims the authorship of the Sutras for Vararuci-katyayana, while Nagojibhatta, a recent commentator, ascribes it to Sakatayana, who preceded Panini.

I shall first cite two passages which were overlooked by Goldstucker and in which Patanjali and Katyayana assure us that it was Panini himself who composed the Unadi sutras.

सार्वधातुकमपित् [डिं१] । २. ४.

सार्वधातुप्रहणं किमर्थम् ।

**अपिदितीयत्युच्यमान आर्धधातुकस्याप्य-
नेतापितोऽित्त्वं प्रसज्येत । कर्ता । हर्ता ।**

**तैव दोषः । आचार्यप्रवृत्तिज्ञापयति नानेनार्ध-
धातुकस्यापितो डित्त्वं भवतीति यदयमार्धधातु-
कीयान्कांश्चिन्दितः करोति चड्, अड्, नजिड्,
डृवनिप्, अथड्, नडः ।**

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सार्वधातुकेऽप्येतज्जापकं स्यात् ।
नेत्याह । तुल्यज्ञातीयस्य ज्ञापकम् ।
कश्च तुल्यज्ञातीयः ।
यथाज्ञातीयकाश्वद्, अङ्, नजिङ्, इनिप्,
अथड्, नडः । कथंज्ञातीयकाश्चैते आर्धधातुकाः॥
यद्येतदस्ति तुल्यज्ञातीयस्य ज्ञापकमिति,
चड़न्दौ लुडिग्करणानां ज्ञापकौ स्याताम्,
नजिङ्गत्तमान कालानां, उनिभूत कालानाम्,
अथड्शब्द औणादिकानां, नड्शब्दो घनर्थानाम्।
तस्मात्सार्वधातुकग्रहणं कर्तव्यम् ॥

Mahabhasya

Kielhorn's 2nd ed. Vol. I, p. 193.

Nirnaya. S. Press, ed. Vol. II, p. 5.

Translation :—

[A "sarvadhatuka" termination which is not पित् becomes डित्] 1, 2, 4.

For what purpose is the word सार्वधातुक used here ?

If only the word अपित् were used the rule would hold good in the case of every ardhadhatuka, which is not पित् such as कर्ता हर्ता.

This is not a defect. The language used by the Acarya (Panini) indicates that by this, (every) ardhadhatuka, which is not पित्, does not become डित् since this Acarya (Panini) affixes ड् (the indicatory letter) to (only) some ardhadhatuka terminations, namely, चड्, अङ्, नजिङ्, इनिप्, अथड्, and नडः.

This ज्ञापक (indication) would be also applicable to Sarvadhatukas.

No. says he ; a ज्ञापक is applicable to a thing of the same kind.

What is meant by तुल्यज्ञातीय ?

Of the same kind as the terminations चड्, अङ्, नजिङ्, इनिप्, अथड् and नडः.
Of what kind are these ?
Ardhadhatukas.

If it were true that a ज्ञापक would apply to things of the same kind, then a ज्ञापक of चड् and अङ् would apply to all the Vikaranas of लुड्, that of नजिङ् would apply to all present tenses, that of इनिप् to all denoting past tense.

The ज्ञापक of the termination अथड् would be applicable to all Unadi terminations, that of नडः, to all the senses of वत्. Therefore, the use of the term सार्वधातुक is essential in this Sutra.]

This passage in the Mahabhasya is most interesting from a historical point of view. It suggests important reflections. Here Patanjali says that Panini affixes the sign ड् to seven terminations. Of these terminations five occur in the following Sutras of the Astadhyayi :—

विभाषा धेटश्वोः [कर्तव्य चड्] III, 1, 49.

{ अस्यनिवक्तिख्यातिभ्योऽड् III, 1, 52,

जृस्तम्भुमृच्छुमुप्रच्छुग्लुच्छुभिभ्यश्च

। [वा अङ्] III, 1, 58.

सुयजोड्वनिप् III, 2, 103.

स्वपितृष्ठोर्नजिङ् III, 2, 172.

यज वाच यत विच्छ प्रच्छरक्षोनड् III, 3, 90.

The remaining termination अथड् which, Patanjali says, is आणौदिक and

to which Panini affixes ङ् is actually found in the following Unadi Sutras: -

शीङ् शपिरुगमिवञ्जिति विप्राणिष्योऽथः

III, 113.

भृत्यश्चित् [अथः] III, 114.

रुदिविदिभ्यां [अथः] डित् III, 115.

उपसर्गे वसेः [अथः डित्] III, 116.

Patanjali is not content with giving his opinion about Panini's authorship of the Unadi Sutras, but hastens to fortify his position by citing the authority of his predecessor Katyayana in a second passage thus: -

अथ किमर्थं पृथग्डितिकतौ क्रियेते न सर्वं
किदेव वा स्यान्दिदेव वा ।

पृथग्नुवन्धत्वे प्रयोजनं वचिस्तपियजादी-
नामसंप्रसारणं सार्वधातुरुड्वादिषु ॥८॥

पृथग्नुवन्धत्वे प्रयोजनं वचिस्तपिमजादी-
नामसंप्रसारणं सार्वधातुरुके चडादिषु च ॥ सार्व-
धातुरुके प्रयोजनम् । यथेह भवति सुपः सुपवा-
नित्येवं स्वपितः स्वपिथः अत्रापि प्राप्नोति ॥
चडादिषु प्रयोजनम् । के पुनश्चडादयः । चड-
ुजिड्वनिवथड्नङ् । चड् । यथेह भवति
शूनः शूनवानित्येवमशिष्वियत् अत्रापि प्राप्नोति ।
अड् । यथेह भवति शूनः उक्त इत्येवमश्वन्
अवोचन् अत्रापि प्राप्नोति । नजिड् ।
यथेह भवति सुप इत्येवं स्वप्रक् अत्रापि
प्राप्नोति । ड्वनिप् । यथेह भवतीष्ट इत्येवं यज्वा
अत्रापि प्राप्नोति । अथड् । यथेह भवत्युर्षित
इत्येवमावस्थः अत्रापि प्राप्नोति । नड् । यथेह
भवतीष्टमित्येवं यज्वः अत्रापि प्राप्नोति ।

Mahabhasya

Nirnaya Sag. ed, Vol. II, p. 4.

Kielhorn's 2nd ed. Vol. I, p. 192.

Translation :—

[For what purpose then are two separate letters, ङ् and क् made indica-

tory (by Panini); why should not every thing be either कित् or डित्?]

The reason for separate indicatory letters is the absence of संप्रसारण in the case of वच्, स्वप् and यज्वादि roots before (अपित्). Sarvadhatuka terminations as well as before चड्, and other terminations.

Reason as regards सार्वधातुक.

Just as सुपः, सुपवान् have संप्रसारण, so स्वपितः and स्वपिथः would undergo the same change.

Reason in the case of चड् and other terminations.

What are चंडादि terminations? चड्, अड्, नजिड् ड्वनिप्, अथड्, and नड्.

चड्—as in शूनः, शूनवान् so also there would be संप्रसारण in अशिष्वियत्.

अड्—as in शूनः, उक्तः, so also there would be संप्रसारण in अश्वन्, अवोचन्.

नजिड्—as in सुपः, so also there would be संप्रसारण in स्वप्नक्.

ड्वनिप्—as in इष्टः; so also there would be संप्रसारण in यज्वा.

अथड्—as there is संप्रसारण in उषित [before क्] so also there would be संप्रसारण in आवस्थ.

नड्—as in इष्ट so also in यज्व there would be संप्रसारण.

Those who have studied Panini's system of grammar, are aware of the fact that words which take कित् or डित् terminations do not undergo गुण. If the prevention of गुण is to be indicated

by the use of both these letters क् and ङ् this purpose can be easily served by employing either क् or ङ् ; it is unnecessary to use both letters. Katyayana, however, tells us that Panini has a special reason for using both letters. Certain words which undergo संप्रसारण before कित् terminations, do not undergo this change before डित् terminations. Patanjali illustrates Katyayana's view by giving concrete instances. We are here only concerned with the root वस् which forms its past participle in क् as उषित् while the same root gives the word आवस्थ when the औणादिक प्रत्यय अथङ् is added to it. It is thus clear that Panini has affixed the sign ङ् to the Unadi termination अथ in order to indicate the fact that the letter व in the sanskrit word आवस्थ "a house" does not change into उ.

I have already quoted above the four Unadi Sutras which teach the formation of the word आवस्थ. Kaiyata thus refers to the last two Sutras :—

रुदि विदिभ्यां डिरित्यतो डिदिति वर्तमाने
उपसर्गे वसेरित्यथप्रययः ।

Nagojibhatta remarks :—

अथडिति । एवमानुपूर्वीक एव प्रत्यय इतिभावः ॥
अथथा फलाभावात् उपसर्गेवसेरित्यत्र डिदित्य-
ननुवृत्तौ भाष्यसंगतिः स्पष्टैवेति केचिः ।

The text and the order of these four Unadi sutras, as they are preserved by Bhattoji Diksita and his Commentator Juanendra Sarasvati, must have been

identical with those known to Katyayana, Patanjali, Kaiyata and Nagojibhatta, as is evident from the statements of these authorities quoted above. These facts will suffice to convince Sanskrit scholars that the Unadi Sutras were composed by Panini himself.

Another interesting fact to which I invite the attention of Sanskrit scholars is that Patanjali speaks of the Unadi terminations as आर्धधातुकीयाः and आर्धधातुकाः in the passages discussed above. Panini defines आर्धधातुक thus :—

तिङ्ग्लित् सार्वधातुकम् III, 4, 113.

आर्धधातुकम् शेषः III, 4, 114.

These two Sutras occur nearly towards the end of the 3rd Adhyaya of the Astadhyayi. Patanjali says that the term शेषः "remaining" has reference to those terminations which have been already enumerated in this Adhyaya :—
अनुक्रान्तापेक्षं शेषग्रहणम् ।

Kaiyata explains :—

ये प्रत्ययास्तिङ्ग्लित्यर्जितास्ते आर्धधातुक-
संज्ञा भवन्ति ननुक्रान्तस्यमाना इत्यर्थः ।

And the Sutra : परश्च occurs at the beginning of this very Adhyaya.

अयमप्यधिकारो योगे योग उपतिष्ठते परि-
भाषा वा चकारः पुनरस्यैव समुच्चार्थः,
तेनोणादिषु परत्वं न विकल्प्यते । Kasika
III. 1, 2.

The Nyasakara Jinendrabuddhi explains :—

अथ चकारः किमर्थः ? यावता नात्र किञ्चित् प्रकृतमस्ति यच्चकारेण समुच्चोयते इत्याह चकारः पुनरित्यादि । अन्यस्य समुच्चेतव्यस्य भागादस्यैव समुच्चयार्थश्चकारो विज्ञायते । तेन बहुलाधिकारेऽपि ये प्रत्यया विधीयन्ते तेष्वप्युणादिषु परत्वं न विकल्प्यते । किमर्थं पुनरिदमुच्यते ? परो यथा स्यात् पूर्वोमाभूदिति ।

Haradatta endorses the Nyasakara's view thus :—

तेनेति । अन्यथा बहुलवचनस्य सर्वोपाधिव्यभिचारार्थत्वादुणादिषु परत्वस्यापि विकल्पः संभाव्येत ।

This view is confirmed by the Karika cited by Patanjali :—

संज्ञासु धातुरूपाणि प्रत्ययाश्च ततः परे ।

The gist of these passages is that the Adhikara Sutra **परश्च III, 1, 2**, which is at the beginning of the first Pada of the third Adhyaya of the Astadhyayi, exercises its authority over the Unadi Sutras occurring at the commencement of the third Pada of the same Adhyaya just below the Astadhyayi Sutra : **उणादयो बहुलम् III, 3, 1**, and indicates that the Unadi terminations come immediately after the verbal roots in the Unadi Sutras. While Patanjali calls these terminations **आधर्धातुकीयाः** or **आधर्ध धातुकाः**, Katyayana frequently refers to them as **कृतप्रत्ययाः** as they come under the definition **कृदतिङ् III, 1, 93**. The conclusion that can be drawn from these facts is that the Unadi sutras form an integral part of the Astadhyayi.

Let us now proceed to discuss the authorship of the verses descriptive of the Unadi Sutras cited in the Mahabhasya and the Kasika, and explained by Patanjali, the Nyasakara, Kaiyata and Haradatta.

**उणादयो बहुलम् III, 3, 1,
बहुलवचनं किर्थम् ?**

बाहुलकं प्रकृतेस्तनुदृष्टेः प्रायसमुच्चयनादपि तेषाम् । कार्यसरोषविधेश्च तदुक्तं नैगमरूढिभवं हि सुसाधु ॥१॥

नाम च धातुजमाह निरुक्ते व्याकरणे शक्त्य च तोकम् । यत्र पदार्थविशेषसमुत्थं प्रत्ययतः प्रकृतेश्च तदूह्यम् ॥२॥

**संज्ञासु धातुरूपाणि प्रत्ययाश्च ततः परे ।
कार्याद्विद्यादनूवन्धमेतच्छास्त्रमुणादिषु ॥३॥**

Translation :—

[Why is the word **बहुलम्** used here ? **बहुलकम्** (**बहुलम्**) is used in order to point out the small number of verbal bases, to which Unadi terminations are affixed (in this Unadi treatise) ; moreover, some Unadi terminations only are collected here. The word **बहुलकम्** or **बहुलम्** is also used to denote that some operations such as **वृद्धि**, **संप्रसारण** etc., are but imperfectly described here, because Vedic words and words current in society are very excellent.]

Every noun is said to be derived from a verbal root in Nirukta and Sakatayana says the same thing in grammar. In case specific verbal bases or terminations are not given here, such bases, are to be conjectured from verbal bases given here.

In words possessing conventional meanings, forms of verbal roots appear first, then follow terminations, symbolical letters are distinguishable by means of operations such as संप्रसारण, वृद्धि etc. This is the teaching in the Unadis.]

Before these introductory verses the Kasika reads :—

वर्तमाने इत्येव, संज्ञायामिति च । उणादयः प्रत्यया वर्तमाने इत्थे संज्ञायां विषये बहुलं भवन्ति । Jinendrabuddhi and Haradatta say that वर्तमाने is obtained by अनुवृत्ति from वर्तमाने लट् III, 2, 123, and संज्ञायाम् from पुरः संज्ञायाम् III, 2, 185.

If the three words वर्तमाने, संज्ञायाम् and बहुलम् are Adhikaras, and they can be Adhikaras to the Unadi Sutras only, a question naturally arises, why are they repeated in the following Unadi Sutras :—

वर्तमाने पृष्ठद्वृहन्महज्जग छ्डतृवच्च II, 84.

धृषेर्थिषः च संज्ञायाम् II, 82.

बहुलमन्यत्रापि II, 37, 49 etc.

Jinendrabuddhi replies :—

भूतेऽपि दृश्यन्ते इति (III. 3, 2) वचनाद्
भूतेपि पृष्ठदादयोभवन्तीत्याशङ्कानिवृत्यर्थम् ।
वर्तमानग्रहणं प्रकृताया एव संज्ञाया अनुवृत्तेद्दी-
कारणार्थम् । पुनः संज्ञाका (क) रणं बहुलवच-
नादसंज्ञायामपि भवन्तीत्याशङ्कानिवृत्यर्थं वा ।
अस्यैव बहुलस्य स्मरणार्थं पुनर्बहुलग्रहणम् ।
एवं हि विस्मरणशीलनामनुग्रहः कृतो भवति ।

So then Panini himself who composed the Sutra उणादयो बहुलम् III, 3, 1

repeats the word बहुलम् very often in his Unadi Sutras to refresh the memory of forgetful students.

Jinendrabuddhi adds :—

अन्यैरपि प्रमाणपुरुषैर्नैगमरुद्दिभवानां व्यु-
त्पाद्यत्वमस्युपेतमिति दर्शयितुमाह नाम च
धातुजमित्यदि । निरुक्ते इति । निरुक्ते शास्त्रे
नामेति प्रातिपदिकम् ।

तस्यहीयमन्याचार्यसंज्ञा । निरुक्तकारः स्वशास्त्रे
निरुक्ते प्रातिपदिकं धातुजमाह न केवलं निरुक्त-
कार एवेहापितु व्याकरणेऽपि यः शकटस्य
पुत्रः शाकटायनः सोपिनाम धातुजमेवाह ।

Kaiyata says :—

नैगमरुद्दिभवानां व्याकरणेऽस्मिन् व्युत्पा-
दनादसंग्रिथं साधुत्वमवगम्यत इत्यर्थं । अन्यैर-
प्राचार्यैः शब्दानां प्रकृत्यादि विभगिन् व्युत्पा-
दनमस्युपगतमित्याह नामेति ।

Haradatta remarks :—

अन्यैरप्राचार्यैः नैगमरुद्दिभवानां प्रकृत्यादि-
विभागेन व्युत्पादनं कृतमतोऽस्माभिरपि
तत्कर्तव्यमेवेत्यमिप्रायेणाह नाम चेति । निरुक्त-
कारो हि यास्क आचार्यः स्वशास्त्रे निरुक्ते सर्व-
मेव नाम धातुजमाह । तोकमित्यपत्यनाम
शकटस्य च तोक शाकटायनः ।

Here अन्यैः प्रमाणपुरुषैः, अन्यैः आचार्यैः refer to teachers other than Panini. From those passages it is also obvious that in the opinion of these commentators Panini composed not only the Unadi Sutras but the introductory verses also, and the statement, नाम च धातुजमाह निरुक्ते व्याकरणे शकटस्य च तोकम् । is not only a paraphrase of Yaska's words नामान्यात्यातजानीति शाकटायनो नैरुक्तसमयश्च but is actually suggested by them.

- This interesting fact is amply confirmed by a comparison of some statements in Yaska's Nirukta with the corresponding Unadi Sutras thus :—
- | | |
|---|--|
| (1) Yaska says, (I, 13) | Panini |
| प्रथनात्पृथिवीत्याहुः | प्रथेः पिवन् संप्रसारणं च Unadi I, 156 पृथिवी. |
| (2) Yaska I, 20 | Panini |
| भीमो विभ्यत्यस्माद्गीष्मोप्येतस्मादेव, | भियः षुगवा, भीमः भीष्मः Unadi I, 158. |
| (3) Yaska II, 5 | Panini |
| गौरिति पृथिव्या नामधेयं यद्दुरगता
भवति यच्चास्यां भूताति गच्छन्ति, | गमेऽर्द्धोः Unadi II, 235. |
| (4) Yaska I, 18 | Panini |
| स्थाणु तिष्ठतेरथोर्तेः, | स्थाणु Unadi III, 324. |
| (5) Yaska II, 27 | Panini |
| अश्वः कस्मादश्नुतेऽध्वानम्, | उषिकुषिगार्तिभ्यस्थन् Unadi II, 4. |
| (6) Yaska VII, 24 | Panini |
| घृतमित्युदकनाम जिघतेःसिश्चतिकर्मणः। | अंजिघृसिभ्यः कः Unadi III, 89. |
| (7) Yaska IV, 17 | Panini |
| रयिरिति धननाम रातेदानकर्मणः, | रातेऽर्द्धेः Unadi II, 66. |
| (8) Yaska III, 21 | Panini |
| स्त्रियः स्त्यायतेः अपत्रपणकर्मणः, | स्त्यायतेऽर्द्धः, स्त्री Unadi IV, 165. |
| (9) Yaska X, 42 | Panini |
| इन्दुरित्वेष्वेष्वेष्वर्वा, | उन्देरिच्चादेः, इन्दुः Unadi I, 13. |
| (10) Yaska IV, 9 | Panini |
| लक्ष्मीर्लक्षणाद्वा, | लक्ष्मेर्मुद्वच Unadi III, 160. |
| (11) Yaska VIII, 12, I, 7 | Panini |
| द्रविणं यदनेनाभिद्रवन्ति दक्षिणा दक्षतेः | द्रुदक्षिणामनिन् Unadi II, 50. |
| (12) Yaska III, 5 | Panini |
| श्मशु श्मर्निधितंभवति | श्मनि श्रयते डुन् Unadi V, 28. |
| (13) Yaska IX, 27 | Panini |
| आपः आप्नोते: | आप्नोतेह्वस्वश्च Unadi II, 58. |
| (14) Yaska X, 7 | Panini |
| रुद्रः रोदयतेष्वा | रोदेणिंलुक्च Unadi II, 22. |
| (15) Yaska II, 18 | Panini |
| रात्रिः रातेवास्यात् दानकर्मणः | रात्रादिभ्यां मिष् Unadi IV, 67. |

- (16) Yaska XI, 32
राका रातेर्दानकर्मणः Panini
कृदाध राचिंकलिभ्यः कः Unadi III, 40.
- (17) Yaska II, 6
वृक्षोत्रश्वनात् Panini
स्नुवश्चिकृत्यृषिभ्यः कित् [सः] Unadi III, 66.
- (18) Yaska III, 10
तळित्...ताडयतीति सतः Panini
ताडेणिलुक्च उनादि I, 100.
- (19) Yaska VI, 8
कृप् कृपतेर्वा करृपतेर्वा Panini
कृपोरोलः Astadhyayi VIII, 2, 18.
- (20) Yaska III, 14
तस्करस्त्वकरोभवति यत्पापकमिति Panini
नैहक्तः
Yaska X, 12
वृहस्पतिर्वृहतः पाता वा पालयिता वा Panini
तस्करश्चोरः । वृहस्पतिर्देवता Astadhyayi VI, 1, 157.
- (21) Yaska says (II, 2.)
तत्राप्येकेऽलपनिष्पत्ययोभ इन्ति तद्यथैतदूतिमृदुः पृथुः पृष्ठतः कुणाहमिति,
Panini has accordingly
प्रथिष्ठदिभ्रस्त्वां (कुः) संप्रसारणं सलोपश्च Unadi I, 29.
पृ (प्र) षिरंजिभ्यां (अतच्) कित् Unadi III, 111.
- The masculine noun पृष्ठतः, a spotted antelope, is formed with the termination अतच् which is कित् from the root प्रृष्ठ स्तेहन सेवन सेचनेषु of the 9th conjugation. This root प्रृष्ठ undergoes संप्रसारण before the कित् termination, as has been explained above. The neuter noun पृष्ठत् is separately derived from पृष्ठु of the 1st conjugation.
वर्तमाने पृष्ठ दृहन्महजगच्छतृत्वच्च Unadi II, 84.

From the instances given above we can easily conclude that Panini has taken these etymologies from Yaska's Nirukta and in forming his Unadi Sutras, has utilized his own Anu-

bandhas. I invite attention to the interesting fact that in the Unadi Sutra forming पृथिवी the letter पृ is an Anubandha ; पृथिवी takes ढीष् (ई) according to the Astadhyayi Sutra षिद्वौरादिभ्यश्च IV, 41. While the same letter in the Unadi Sutra teaching the formation of भीष्म is not an Anubandha, as it forms part of the word itself. Therefore Panini says,

कार्याद्विद्यादनूवन्धमेतच्छास्त्रमुणादिषु ।

Panini has volunteered the explanation that these etymologies are according to the school of the Niruktakaras

and Sakatayana as there opinions are reproduced in Yaska's great work. These etymologies are offered for what they are worth. This treatise does not represent Panini's personal views. He was aware of the heated controversy that had been raging over the origin of words for more than a century at least before his time between his time the followers of Sakatayana and the Niruktakaras on one hand and the followers of the grammarian Gargya on the other. Panini asserts his independence of judgment and gives occasionally proofs of his leanings towards the school of Gargya. Though in his Unadi treatise he forms the noun ईश्वर and its feminine ईश्वरी

अथोतेराश्रुकर्मणिवरद्दच un. V, 57.

चकारादुपधाया ईश्वम् ईश्वरः, ईश्वरी

Panini prefers to derive this word meaning "a ruler" from the root ईश् to rule, with its feminine ईश्वरा thus:

स्थेशभासपिसक्षो वरच्

Astadhyayi sutra III, II, 175.

The word कंस is derived from the root क्षम् in Unadi Sutra

वृत्तविदिहनिकमिकषिभ्यः सः Unadi III, 62

"This is according to the Nirukta school" says Panini but as a follower of the Gargya school, I think the word can not be traced to any root अतः कृकमिकंस

Astadhyayi Sutra VIII, 3, 46.

अयस्कामः, अयस्कंसः

One more instance will suffice for my purpose : Yaska says (III, 19)

"स्तेनः कस्मात् संस्त्यानमस्मिन् पापकमिति नैरुक्ताः"

Durga explains:—

आह "स्तेनः कस्मात्"? उच्यते—“संस्त्यानम्” संहतम् “अस्मिन्” “पापकम्” कर्म भवति “इति” एवं “नैरुक्ता” मन्यन्ते ॥ वैयाकरणानाममन्यथापि स्थादित्यमिप्रायः ।

The followers of Gargya objected to this etymology that स्तेन but not स्त्येन with य in the first syllable is frequently found in the Rigveda. Panini, however, gives this Nirukta specimen of derivation in the Unadi Sutra :—

इयास्याहृत्विभ्य इनच् Un. 11, 46.

but prefers to trace the word to the root स्तेनचौर्ये� elsewhere:—

स्तेनाद्यन्तलोपध

Astadhyayi Sutra V, 1, 125.

in order to form the word स्तेय.

I have thus traced the origin of the two schools of thought among Sanskrit grammarians the व्युपत्तिपक्ष and the अव्युपत्तिपक्ष and have described the influence which they have exercised over Panini's writings. I have also established the priority of Yaska to Panini by unimpeachable evidence.

It is necessary to state here that Yaska's words.

अथापि द्विवर्णलोपस्तृच्च इति (II, 2.)

has manifestly suggested Katyayana's Vartika

ऋचि त्रैरुत्तरपदादिलोपच्छत्तन्दसि VI, I, 137.

and Patanjali quotes the passages

षड्भावविकारा इति ह स्माह वार्ष्यायणिः ।
जायतेऽस्ति विपरिणमते वर्द्धते उपक्षीयते विन-
श्यतीति, शवतिर्गति कर्माक्रमबोजस्येव भाषितो
भवति ।

from Yaska's Nirukta

It is thus clear that Yaska preceded Panini, Katyayana and Patanjali.

Dr. Aufrecht draws attention to the fact that in one place (II, 38) we are told that the people of the north used the word कार्शक for 'a husbandman,' in another (IV, 128), that they employed कारि in the meaning of 'an artisan.' But he has omitted to state that the other forms कर्शक and करि are given by the commentator. Dr. Aufrecht also remarks, "in another place (III, 144) we find the name of Cakravarmana, an old grammarian, who is only once more quoted, namely in Panini VI, 1, 130." Here also Dr. Aufrecht has failed to indicate the purpose for which the old grammarian is mentioned. In the opinion of Cakravarmana alone, the word कुणप receives the उदात्तस्वर on the second syllable, while in the opinion of other authors including the author of the Unadi Sutras, the उदात्तस्वर lies on the first syllable of the word कुणप. Thus the mention of उदीचाम् and चाकवर्मण in the Unadi Sutras is intended to denote विकल्प or option as regards वृद्धि and उदात्तस्वर.

It is a well-known fact that Panini introduces into his Sutras the terms उदीचाम् and प्राचाम् and the names of Acharyas to denote विकल्प.

उदीचामातः स्थाने यक्षपूर्वायाः VII, 3, 46.

आर्यका । आर्यिका । चटकका । चटकिका ।

Kasika remarks उदीचां ग्रहणं विकल्पार्थम् ।
ई 3 चाकवर्मणस्य VI, 1, 130.

अस्तु हीत्यब्रवीत् । अस्तु ही इत्यब्रवीत् ।

Kasika says चाकवर्मणग्रहणं विकल्पार्थम् ।

In his Vartika on the Sutra नवेति विभाषा I, 1, 44 Katyayana says :—

आचार्यदेशशीलेन च तद्विषयता ।

Patanjali explains आचार्यशीलेन देश-शीलेन च यदुच्यते, तस्य तद्विषयता प्राप्नोति 'इकोहस्तोऽङ्गयो गालवस्य (VI, 3, 61) प्राचाम वृद्धात् फिन् बहुलम् (IV, 1, 160) इति । गालवा एव हस्तान् प्रयुज्ञारन्, प्राक्षुचैव हि फिन् स्यात् ।

The optional forms here indicated are ग्रामणिपुत्रः and ग्रामणीपुत्रः । ग्लु च कायनिः and ग्लोचुकिः. In the same connection Patanjali remarks :—

आचार्यः खल्वपि संज्ञामारभमाणो भूयिष्ट मन्त्रैरपि शब्दैरेतपर्थं संप्रत्याययतिबहुलम्, अन्य- तरस्याम् उभयथा, वा, एकेषाम्, इति ।

In this passage आचार्य means पाणिनि. Similarly the word प्राचाम् in the Sutra गुरोरनृतोऽनन्त्यसाप्तैकैकस्य प्राचाम् (VIII, 2, 86).

is explained as denoting विभाषा by Katyayana and Patanjali and the Kasika commenting on the Sutra (IV, 1, 160) says

उदीचां प्राचामन्यतरस्यां बहुलमिति सर्वे
एते विकल्पार्थाः ।

Again in his Vartika on न यासयोः (VII, 3, 45) Katyayana says

वर्तका शकुनौ प्राचाम् ॥ ६ ॥

Patanjali adds, प्राचामिति किमर्थम् ।
वर्तिका ।

The Kasika remarks :—

वर्तका शकुनिः । प्राचामन्यत्र उदीचां तु
वर्तिका ।

Panini, who was an Udicya, because he was a native of Gandhara, composed the following Unadi Sutra, explaining the formation of the word वर्तिका thus :—

वृतेस्तिकन् Unadi Sutra, III, 146.

Ujjvaladatta says,

वर्तका शकुनौ प्राचां । पा. ७, ३, ४५, ६ ।

इत्यकारस्येत्वेऽविधेये वार्तिकारंभाद्वतेष्वुल् वर्ति-
केतिच व्याख्यातत्वादस्या नार्षता लक्ष्यते ।

Here the allusion is to Haradatta's words वृतेर्ग्यन्तात् एवुल्, वर्तिका ।

Ujjvaladatta has left out the words एयन्त्. Haradatta's explanation applies to वर्तिका भागुरी लोकायतस्य 'a commentary describing the Lokayata doctrine,' which is a counter instance to शकुनाविति किम्? Thus the doubt thrown on the genuineness of the Unadi Sutra is groundless. The प्राच्यदेश and the उदीच्यदेश referred to in the above discussion is thus described :—

लोकोऽयं भारतं वर्षं शरावत्यास्तु योवधेः ।

देशः प्राग्दक्षिणः प्राच्य उदीच्यः पश्चिमोत्तरः ॥

शरावत्या नद्या मर्यादायाः प्राक् सहरचरितो

दक्षिणो देशः प्राच्यः ॥ ६ ॥ शरावत्या अवधेः
पश्चिमेन सहरचरित उत्तरो देशः (उदीच्यः),
यदाह ।

प्रागुदश्चौ विमजते हंसः क्षीरोदके यथा ।

विदुषां शब्दसिद्ध्यर्थं सा नः पातु शरावती ॥
काशिका,

Amarakosa Oka's Ed, Vol. I. P. 47,

Dr. Aufrecht's correction into वर्तिका शकुनौ प्राचाम् shows that he has failed to understand the reference.

Another point which is worth nothing here is that Ujjvaladatta says under Unadi Sutra III, 113.

अथ प्रत्ययोऽयमिति भाष्यं । तदुक्तं । के पुनश्च
डादयः च डडः न जिडः ड्वनिवथडः न डः इति ॥

I quote this from Dr. Aufrecht's edition p. 86. In the Notes we are asked to "see Patanjali on P. I. 2, 1." This reference will convince Sanskrit scholars that Dr. Aufrecht has entirely failed to grasp the meaning of the second passage in the Mahabhasya which has been explained above, and has besides done gross injustice to Ujjvaladatta, who intended that the Sutra उपसर्गे वसेः should come immediately after the Sutra रुविदिभ्यां डित् thus—

रुविदिभ्यां डित्

उपसर्गे वसेः [अथः डित्] आवस्थ

So that the termination अथ being made डित् by अनुवृत्ति by the Acarya Panini indicates, in the opinion of Katyayana and Patanjali, the fact that the व of the root वस् in the word आवस्थ does not undergo संप्रसारण.

The position of the Sutra भृजश्चित् remains unaffected by this change, as is plain from the following sequence of the Sutras :—

शीङ् शपि रुगमि वंचि जीवि प्राणिभ्योऽथः
III, 113.

भृजश्चित् [अथः] III, 114.

रुविदिभ्यां डित् [अथः] III, 115.

उपसर्गे वसेः [अथः डित्] III, 116.

The Sutra भृजश्चित् can not precede the Sutra शीवि &c., as अथ has to be obtained by अनुवृत्ति to form भरथ. Nor can the Sutra भृजश्चित् follow रुविदि etc., as भृ in भरथ undergoes गुण. It is thus clear that Panini composed these four Unadi Sutras in the order in which they were known to Katyayana and Patanjali, as is explained by Kaiyata and Nagojibhatta. The three important passages in the Mahabhasya, which have been explained above, were entirely overlooked by Goldstucker, who maintained that the Unadi Sutras were not composed by Panini. In support of his contention Goldstucker relies upon some other passages which he has misunderstood and misinterpreted. The first passage under Sutra VII, 1, 2 is given below. In this passage there are three Vartikas, dealing with Unadi Sutras which are explained by Patanjali. It must be emphasized here that none of these three Vartikas is assailed by Patanjali who merely confines himself to explaining Katyayana's views.

तत्रोणादिप्रतिषेधः ।

तत्रोणादीनां प्रतिषेधो वक्तव्यः शङ्खः शण्ड इति ।
धातोर्वेयड्वचनात् ।

अथवा यद्यमृतेरीयड् [३-१-२९] इति धातो
रीयडः शस्ति तज्ज्ञापयत्याचार्यो न धातुप्रत्यया-

नामायनादयो भवन्तीति । यदि हि स्युकृते
इछडि ल्येव व्रयात् । सिद्धे विधिराभ्यमाणो
ज्ञापकार्थो भवति न च ते इछडा सिद्ध्यति ।
छडि सति वलादिलक्षण इट्प्रसज्येत । इति कृते
अनादित्वादादेशो न स्यात् ॥ इदमिह संप्रधा-
र्यम् । इट्कियतामा देश इति । किमत्र कर्तव्यम्
परत्वादिडागमः । नित्य आदेशः । कृते अपीटि
प्राप्नोत्यकृते अपि । अनित्य आदेशो न हि कृत
इटि प्राप्नोति । किं कारणम् । अनादित्वात् ।
अन्तरङ्ग स्तर्वादेश । कान्तरङ्गता । इदानीमेव
ह्युक्तमायनादिषुपदेशिवद्वचनं स्वर्गसिद्ध्यर्थमिति ।
तदेतद्वतेरीयड्वचन ज्ञापकमेव न धातुप्रत्यया-
नामायनादयो भवन्तीति ॥

प्रातिपादिक विज्ञानाच्च पाणिनेः सिद्धम् ॥
प्रतिपादिक विज्ञानाच्च भगवतः पाणिनेशाच्चा-
र्यस्य सिद्धम् । उणादयो इव्युत्पन्नानि प्राति-
पादिकानि ॥

1st Vartika

Those the Unadi words form an exception.

Bhasya

There (in the Unadi Sutras) the Unadi words must be pronounced exceptions such as शङ्खः and शण्ड.

2nd Vartika.

Or on account of Panini's statement that the root (ऋति) takes इयड्, (verbal terminations do not change into आदन् etc.)

Bhasya

Or as the Acarya Panini teaches that the termination इयड् should be added to the root ऋति so as to form ऋतायते he indicates thereby that verbal terminations such as ख and ड are not

to be changed into आयन् etc; otherwise he would have said क्रृतेश्चङ्ग्. It is objected that if ऋतीयते could be formed with छङ्ग् then only a ज्ञापक would be drawn. But it can not be formed as छङ्ग् takes इडागम् and becomes इछङ्ग्, and छ not being the first letter in इछङ्ग्, does not change into ईव्. Here this should be determined whether इडागम् or आदेश ईय् should take place. इडागम् being subsequent (पर) should prevail. If आदेश be नित्य, it will prevail. If the आदेश be अनित्य, it will yield to the इडागम्, छ not being the first letter in इछङ्ग्. Nevertheless आदेश will be considered अन्तरंग (proximate) why? because it was said just now that आयन् etc. were pronounced simultaneously with फ् etc. in order that they might become आदिउदात्. Thus Panini's statement that the root ऋति takes ईयङ्ग्, being ज्ञापक; indicates that verbal terminations, (उणादि प्रत्यया.) do not change into, आयन् etc.

3rd Vartika

Panini regards Unadi words as Pratipadikas.

Bhasya.

Revered Panini regards Unadi words as Pratipadikas Unadi words are nouns that can not be traced to roots.]

Remarks

I have given a literal rendering of the whole passage. Here the second

Vartika is most important. The actual words used are धातोरीयङ्गच्चनात्.

The natural order of the words is वा धातोरीयङ्गच्चनात्.

This is not a complete sentence. There is an ellipsis after the word च्चनात्, which being in the fifth case, denotes a reason Patanjali fills up the ellipsis thus:—

अथवा यदयं क्रुते रीयङ्ग् [III, 1, 29] ॥ति
धातोरीयङ्ग शास्ति तज्ज्ञापयत्याचायो न धातु
प्रत्ययानामायनादयो भवन्तीति ।

By the word वा or अथवा Katyayana offers a second explanation, "since Panini adds ईयङ्ग् instead of छङ्ग् to the root ऋति, he thereby indicates or wishes us to understand that the terminations ख and ड added to the root, शम्, as taught in the Unadi Sutras शमेः खः I, 104, and शमेद्वः I, 101 do not change into ईन् and एय्. The plain fact is that in the opinion of Katyayana and Patanjali, Panini composed the Unadi Sutras. This explanation is according to the व्युत्पत्तिपक्ष, the school of thought who hold that all nouns are verbal derivatives. The third Vartika is based on the अव्युत्पत्तिपक्ष, that is to say, though Panini composed the Unadi Sutras, they do not represent his personal views. Thus the words, शङ्ग् and शएड्, not being traceable to roots, ख and ड do not change into ईन् and एय्. Kaiyata remarks:—

प्रातिपदिक विज्ञानादिति । पक्षान्तरैरपि परि-
हाराः सम्भवन्तीतयव्युत्पत्तिपक्षाश्रयः ।

Let us now turn to Goldstucker's explanation of this very passage. After giving a garbled quotation and omitting all reference to ऋतेरीयङ् being a ज्ञापक Sutra, he says:—

To this rule (VII, 1, 2) Katyayana appends the remark that the Unadi affixes form an exception, when Patanjali explains this view of the author of the Vartikas by the instances, Sankha, Sandha; for though these words are formed with the affixes *Kha*, and *Dha*, the letters *dh* and *kh*, in their affixes, are real, not symbolical. "And" continues Katyayana in two subsequent Vartikas, "though Panini speaks himself, in Sutra III. 1, 29, of an affix *iyang* (not *cang*, as might be expected according to rule VII. 1, 2) this does not invalidate my exception, for the latter is based on the circumstance that Panini treats in his rule VII, 1, 2 not of verbal but nominal bases." "True" rejoins Patanjali; but Katyayana might have spared this discussion, for nominal bases formed with Unadi affixes are bases which have no grammatical origin.

The absurdity of this explanation will be at once appreciated by those who have carefully perused my rendering of the text with my explanatory remarks thereon given above. I

would however, point out that the first mistake of Goldstucker is his failure to see that यत् being correlative to तत् does not mean "though" in the sentence यदयं.....धातोरीयङ्गशस्ति तज्ज्ञापयत्यचार्यो etc. The second mistake is his omission to translate वा or अथवा which introduces the second वार्तिक offering an alternative explanation to the one given in the first. The third mistake is that he has failed to see that धातोरीयङ् वचनात् is not a complete sentence; there is an ellipsis after the word वचनात् which Patanjali has filled up. The fourth mistake is Goldstucker's erroneous supposition that the Sutra ऋतेरीयङ् is introduced on its own account and not as a ज्ञापक to the Unadi Sutras, which continue to be the principal topic of Katyayana's discourse, in the second as well as in the first Vartika.

I have thus proved that Panini composed the Unadi Sutras and inserted them, together with the three introductory verses prefixed to them, immediately after the Sutra उणादयोवहु-लम् III, 3, 1. The feminine terminations are taught at the beginning of the fourth Adhyaya of the Astadhyayi while the Unadi sutras are assigned a place in the third Adhyaya. The well known Sutra गोक्षियोरूपसर्जनस्य (1, 2, 48) occurs in the first Adhyaya. The

relative positions of these may be shown thus :—

First Adhyaya
गोत्रियोः (1.2.48)

Third Adhyaya
उणादयोवहुलम् (111,3,1)

श्रीः Un. 11.57
तन्त्रीः Un. 111.158

लक्ष्मीः Un. 111,160
Fourth Adhyaya.

वियाम् (IV,1.12)

अधिकारोयम्

The Sutra गोत्रियोः teaches that feminine nouns which are subordinate members in compounds shorten their final vowels as in निष्कौशास्वः अतिखट्वः. But though the Uandi Sutras are subsequent to this Sutra, the Unadi words तन्त्रीः, श्रीः and लक्ष्मीः do not conform to it in the compounds अतितन्त्रीः, अतिश्रीः and अतिलक्ष्मीः; only the feminine terminations mentioned in the fourth Adhyaya obey this Sutra. It is manifest from this that Panini first composed his Astadhyayi and then compiled his Unadi treatise. He inserted it in the third Adhyaya, where कृत् terminations are treated of, because Unadi terminations are of the same nature, falling under the definition of कृ॒ as given in the Sutra

कृदतिङ्. But this has rendered the arrangement of the Sutras in the Astadhyayi most defective. Katyayana who flourished nearly two centuries later, proposed to remove the defect thus :—

गोत्रियोरुपसर्जनस्य 1, 2, 4.

गोटङ्ग्रहणं कृत्तिवृत्त्यर्थम्।

गोटाङ्ग्रहणं कर्तव्यम्। किमिदं टाङ्गिति।

प्रत्याहारग्रहणम्। क संनिवेष्टनं प्रत्याहारः।

टापः प्रभृत्या ष्यडो ङ्कारात्। किं प्रयोजनम्।

कृत्तिवृत्त्यर्थम्।

कृत्तिव्या धातुत्तिव्याश्च हस्तत्वं माभूदिति।

अतितन्त्रीः अतिश्रीः अतिलक्ष्मीरिति ॥ तत्तद्विं

वक्तव्यम्। न वक्तव्यम्। खीग्रहणं स्वरायष्यते।

तत्र स्वरितेनाधिकारगति भवति। वियाम्

(IV, 1, 3) इत्यवंप्रकृत्य ये विहिता स्तेषां

ग्रहणं विजास्यते। स्वरितेनाधिकारगतिर्भव-

तीति न दोषो भवति।

[TRANSLATION

Sutra 1, 2, 48.

The word गो and nouns ending in feminine terminations, which are subordinate members of compounds, shorten their final vowels, as चित्रगः, निष्कौशास्वः and अतिखट्वः.

Vartika
गोटाङ्ग should be accepted, in order to exclude Krit or Unadi terminations.

Bhasya
गोटाङ्ग should be accepted. What does टाप् mean? It is Pratyahara. What terminations are embraced in it? Those beginning with ष्यड् (IV, 1, 4)

and ending with स्त्री (IV, I, 78.) For what purpose? For the purpose of excluding Krt terminations, so that feminine Krt terminations and feminine terminations affixed to verbal roots should not shorten their final vowels. If this be the case this Vartika is necessary. No, it is not necessary. The word स्त्री in this Sutra will be made स्वरित; by स्वरित the अधिकार of the word स्त्री will be understood there (in the Sutra स्त्रियाम् IV, 1, 3.) Thus those feminine terminations that are prescribed according to the अधिकार "स्त्रियाम्" will be understood. Since by स्वरित the authority of the word स्त्री is known, there is no defect.]

Remarks

That this Sutra is defective is the unanimous opinion of Katyayana and Patanjali. They only differ as regards the means by which to remove the defect. Katyayana proposes to add a supplementary note enumerating only the feminine terminations taught in the fourth Adhyaya, thus leaving out the Unadi terminations given in the third Adhyaya, which are subsequent to the Sutra under consideration. Patanjali says that this note is unnecessary and suggests a simpler device. He utilizes for this purpose the Sutra स्वरितेनाधिकारः (1, 3, 11). The word स्त्री in गोस्त्रियोः (1, 2, 48) will be made स्वरित, that is, it will be अधिकृत or invested with अधिकार. The अधिकार i.e. the sphere of its duty lies in the fourth Adhyaya स्त्रियाम् (IV, 1, 2) where the

word स्त्री must go in order to exercise its authority. Patanjali says :—

'अधिकृतोऽसौ ग्रामे' 'अधिकृतोऽसौ नगरे'
इत्युच्यते यो यत्र व्यापारं गच्छति (I, 3, 11)

This point may be illustrated by a concrete instance. A British statesman is appointed Viceroy of India. He passes through France on his way. In France there are many Indians. But he can not exercise an authority over them as the sphere of his duties lies in India. So the words श्रीः, तन्त्रीः and लक्ष्मीः taught in the third Adhyaya remain unaffected by the word स्त्री (1, 2, 48) being made स्वरित (अधिकृत) and we can thus form the compound अतिश्रीः, अतितन्त्रीः and अतिलक्ष्मीः:

It may be of interest to point out here that Candra, the Jain Sakatayana and Hemacandra, who have Unadi Sutras of their own, but have no Sutra corresponding to स्वरितेनाधिकारः, have avoided Panini's mistake in the following way:—

Candra

First Adhyaya उणादयः 1, 3, 1,

Second Adhyaya सुपि हस्तः 11, 2, 84
गोरप्रधानस्यान्त्यत्य 11, 2, 84

इयादीनाम् 11, 2, 85

Jain Sakatayana

Second Adhyaya न्यगोष्यतोऽन्

शीयोवहुव्रीहेः (11, 1, 123)

Fourth Adhyaya उणादयः IV, 3, 280
Hemacandra

Second Adhyaya. इयादे गोणस्य
II, 4, 94.

गोभान्ते हस्तः II 4, 95.

Fifth Adhyaya. उणाद्यः V, 2, 93.

Patanjali adverts to this defect again thus:—

न तर्दीदानीमयं योगे वक्तव्यः । वक्तव्यश्च ।
किंप्रयोजनम् । स्वरितेनाधिकारगतिर्यथा विज्ञायेत । अधिकं कार्यम् । अधिकारःकारः ॥ अधिकारगतिः । गोख्यियोरुपसर्जनस्य (I, 2, 48)
इत्यत्र गोटाङ्ग्रहणं चोदितं तत्र कर्तव्यं भवति ।
स्त्रीग्रहणं स्वरायिष्यते । स्वरितेनाधिकारगतिर्भवतीति स्त्रियाम (IV, 1, 3) इत्येवं प्रकृत्य ये
प्रत्यया विहिता स्तेषां ग्रहणं विज्ञास्यते । तत्र
स्वरितेनाधिकारगतिर्भवतीति न दोषो भवति ॥
I, 3, 11.

The text of this passage is given above as it appears in Kielhorn's second edition of the Mahabhasya, Vol. I, p. 273, in Bibl. Ind. ed. of the Mahabhasya-pradipodyota, Vol. II, pp. 433, 434 and in the Nirnaya sagara edition Vol. II, p. 147. Besides the text and the meaning of this passage are controlled by the preceding passage which has been already explained above. Here Patanjali says that three advantages are gained by the use of स्वरित. The construction employed is the words किं प्रयोजनम्, and reads the स्वरितेनाधिकारगतिर्यथा विज्ञायेत [स्वरितेन] अधिकं कार्यं [यथा विज्ञायेत] । [स्वरितेन] अधिकः कारः [यथा विज्ञायेत] । The three advantages, अधिकारगतिः, अधिकं कार्यं and अधिकः कारः are illustrated by examples and are summed up in the concluding Gatha which winds up the whole discussion. We are here concerned only with the first अधिकारगतिः : I offer the following translation of the passage.

Translation—

[In such a case this sutra 1, 3, 11 should not be uttered now. It must be uttered. For what purpose? in order that (1) the application of the word अधिकार, (2) extra duty, (3) additional work may be known. (1) The application of the word अधिकार in the Sutra गोख्यियोः the Vartika गोटाङ्ग् (the word गो and the feminine, terminations beginning with टाप्) the acceptance of which is urged, becomes unnecessary. The word स्त्री (1,2,48) will be pronounced स्वरित. Since by स्वरित the application of अधिकार is known, those feminine terminations, that are taught under the अधिकार "स्त्रियाम्" IV. 1,2 will be recognised. There (in the Sutra I, 2, 48) अधिकार will be understood by स्वरित; and so there is no defect.]

Let us turn to Goldstucker. He interpolates the word Vartika after the words किं प्रयोजनम्, and reads the passage thus :—Patanjali.....किं प्रयोजनम्—Vartika (Omitted in the calc. ed.) स्वरितेनाधिकारगति यथा विज्ञायेत Patanjali अधिकारगतिः । अधिकः कारः । अधिकं कार्यम् । गोख्यियोरुपसर्जनस्येतत्र गोटाङ्ग्रहणं चोदितं न कर्तव्यं भवति । स्त्रीग्रहणं स्वरायिष्यते । स्वरितेनाधिकारगति र्भविष्यतीति स्त्रियामित्येवं प्रकृत्य ये विहितास्तेषां ग्रहणं विज्ञास्यते तत्र स्वरितेनाधिकारगतिर्भवतीति न दोषो भवति, etc,

Goldstucker's translation.

[Patanjali.....“What is the purpose of the Sutra ? Vartika : That the proper way of applying an Adhikara might be known by means of the Svarita.”]

Patanjali : “ Proper way of applying an Adhikara.” (Just so) (Adhikara means) an agent placed over, or an act to be done, placed over. Now, at the Sutra 1, 2, 48, the expression, Gotang ('used in the Vartika to this rule) must not be considered as the subject of the Adhikara ; for the expression Stri will have the Svarita. Therefore according to the words of the Vartika (that the proper way' etc.) those affixes alone will have to be understood in that Sutra 1, 2. 48 which fall under the head, Stri, and according to the Vartika's own words; there is no defect in the Sutra 1, 2, 48.’] It is obvious from this absurd translation that Goldstucker did not know that दाढ़् in गोदाढ़् is a Pratyahara. As he has altered the text, and by interpolating the word Vartika, has transferred Patanjali's words to Katyayana, no conclusion can be drawn from them as to the authorship of the Unadi Sutras or their place in the Astadhyayi. Goldstucker has also confused the word स्वरित denoting अधिकार with the accent स्वरित. Jinendrabuddhi clearly distinguishes between the two words thus :—

यदि पारिभाषिकस्येह स्वरितस्य ग्रहणं स्याद्
रषाभ्यां नोणः समानपद इत्यत्र (VIII, 4, 1)
णकाराणकारस्याधिकारता न स्यात् । पारि-
भाषिकस्याज् धर्मत्वात् । णकारस्या न च कत्वा
दिति मत्वा सर्वेषां वर्णनामचां हलाज्ज्ञ स्वरि-

तोख्या यो वर्णधर्मां गुणस्तस्येदं ग्रहणं न पारि-
भाषिकस्य ।

प्रतिज्ञा स्वरिताः पाणिनीया इति । प्रतिज्ञया
स्वरितो येषां ते तथोक्ताः । तदेत दुक्षं भवति ।
यत्रेव ते आचार्याः स्वरितत्वं प्रतिज्ञानते तत्रै-
वास्य सज्जावो भवति नान्यत्रेति । तदपि प्रति-
ज्ञानं नानियमेन भवति । किं तर्हि? यत्राचार्याः
स्मरन्ति तत्रैव भवति । सचायं धर्मेः कला-
द्युपम इति वेदितव्यः ।

Nyasa on Kasika I, 3, 11.

[One advantage arising from incorporating the Unadi Sutras into the Astadhyayi was that Panini was saved the trouble of defining the numerous terms employed in them. But he does not seem to have anticipated that his arrangement would lead to confusion between similar terminations. In his Sutra तितुत्रत् (VII, 2, 9) Panini says that the termination त does not take the prefix इट्. But as he does not attach any Anubandha to it here it becomes doubtful whether the termination intended is Aunadika or participial.

Accordingly Katyayana suggests several devices in order to enable us to distinguish between the past participle त (क) and the Aunadika त (तन्) in his Vartikas on the Sutra कक्षवत्तुनिष्ठा (1, 1, 26) while the commentators Jinendrabudhi, Kaiyata, Haradatta and Nagojibhatta are at great pains to tell us that the Aunadika डृति should not be confused with the Taddhita डति in the

Sutra डतिच (1, 1, 25) Therefore Ujjvaladatta in his comments on the Unadi Sutra पातेऽतिः (11. 57) remarks:—

पतिना (पातिना) सिद्धे पृणाति पालयतीर्यं
उ विधानमिति पारायणम् । बहुगण वतुड-
तीति । पा १, १-२३ । च तु साहचर्या [च]
द्वितस्य डते ग्रहणादस्य डते र संख्यात्वं ।
डतिच । पा १-१-२५ । इत्यत्र संख्याग्रहणानु-
वृत्ते रस्य पट् संज्ञाया अभावः । तत पतय इति
जसो लुक् न भवति । Unadivrtti, Dr.

Aufrecht's ed p. 105.

It is true that whether the root be
पृ पालनपूरणयोः or पा रक्षणे the resulting
from पति will be the same by the dropping
of the last syllable. But the specific
root पाति being used in the Unadi
Sutra, the opinion of the Parayana is
not entitled to a hearing. In his notes,
p. 159 Dr. Aufrecht transfers Nago-
jibhatta's words to Kaiyata and misun-
derstands the reference.

As a general rule the Unadi Sutras
contain verbal roots and terminations.
This fact is stated in the third Karika.
Their object is to show that every
noun is derived from a root. In a
few cases, however, irregular forms or
Nipatanas are mentioned. The follow-
ing Unadi Sutra contains ten
Nipatanas.

नप्तु, नेष्टु, त्वष्टु, होतु, पोतु, भ्रातु, जामातु,
मातु, पितु, दुहितु, Unadi 11. 96.

In his comments on the Sutra खुल्ल-
तुच्चो [III, 1, 133] Patanjali says that
Panini mentions only two words deno-
ting blood relations स्वस् and नप्तु in his
Sutra अप्तृन्तुच्चनप्तुनेष्टुक्षत्तहोतुपोतुपशा-
स्तृणाम्. (VI, 4, 11) where the lengthen-
ing of the letter अ is taught ; with a

view to exclude other blood relation
मातु पितु भ्रातु etc. mentioned in the
above Unadi Sutras.

स्वस्तृनप्तुप्रहणं नियमार्थं भविष्यति पतयेरेव
योनिसंबन्धयोर्नान्येषां योनिसंबन्धानामिति ।

The word भ्रातु is thus निपातित (irregu-
larly formed). This has tempted the
poet Magha to make a pun on the
word निपातित which means " killed "
as well as " irregularly formed " in the
following verse:—

निपातितसुहृत्स्वामिपितृव्यभ्रातुमातुलम् ।

पाणिनीयमिवालोकि धीरैस्तत्समराज्ञिरम् ॥

Sisupalavadha XIX, 75

Translation:—

[That battlefield, in which friends,
lords, paternal uncles, brothers and
maternal uncles were killed, was looked
upon by brave men as the work of
Panini, wherein are taught, as irregu-
lar forms, the words सुहृद्, स्वामिन्,
पितृय, भ्रातु and मातुल ”] These five
Nipatanas are taught in the following
Sutras:

सुहृद्दौ मित्रामित्रयोः

Astadhyayi Sutra V, 4, 150

स्वामिक्षेष्वर्ये,

Astadhyayi Sutra V, 2, 126

पितृव्यमातुलमातामहापितामहाः

Astadhyayi Sutra IV, 2, 36.

नप्तु नेष्टु त्वष्टु होतु पोतु भ्रातु जामातु मातु

पितु दुहितु.

Unadi Sutra II, 96

It is obvious from the verse trans-
lated above that the Unadi Sutras,
like the other Sutras in the Astadhyayi,
were composed by Panini himself and
form an integral part of his work. And
this conclusion is amply supported by
the statements of Katyayana, Patanjali,
Jinendrabuddhi, Kaiyata and Hardatta,
as has been proved above.

THE HINDU MAHA SABHA.

(MR. S. P. KULYAR.)

The Hindu community has felt its weakness and now longs to gather strength to its arms and awaken co-operation among its members. A feeling of unity, solidarity, and equality has been, so long, absent among its members. It is this feeling that ought to be planted into every Hindu heart—nourished—and made to grow strong.

It is not an easy task. For two thousand years we have been taught to regard certain classes of our people as low, some as even untouchables. The notion has grown so strong that we instinctively draw back when such a person approaches us. That is not all. The poison has gone deeper. It has really made those people low. They now themselves believe that they are low and untouchable. It is they who now tell us to keep aloof from them. They have been actually mesmerised.

The question of reform is therefore a psychological question. It will require a great effort—a strong *will*—to achieve success. The work can be done in a day if we apply the requisite amount of *will*; it may take years and centuries if we do not concentrate our energies on it.

It is too early to pronounce any judgment on the work of the Sabha. The work has just begun. Let every member of the great Hindu community do his duty by it—and remember that we shall have to pronounce a judgment not on others but upon ourselves.

The responsibility undertaken by the prime movers of the Maha Sabha is no less serious. The fate of the community affecting the well-being of millions of men will have to be viewed from a higher plane of thought and feeling. Narrowness will not do. Thoughts of self must be put aside. The good of Humanity alone

should be our object. Here are millions of men whom we have treated with scant justice—nay, one may say—with contempt. It is no longer possible to do that. You will have to revise your notions. You will have to deal justly and honourably with them—or take the consequences. Admit them into your brotherhood or let them go—one thing surely they must do—where welcome awaits them.

The question of admitting the untouchables to some privileges—as that of drawing water from the common well, and of worshipping in the Temples—has been referred to a committee of Pandits for opinion. Whether it was necessary to do this or not we shall not discuss. Perhaps after all a little time to those who have to part (with a pang) with some cherished privileges and a little patience to those who are out to secure them will not be unprofitable.

It is for the edification of these Pandits and of the members of the Maha Sabha that we present here the proceedings of a meeting as reported to me by a friend. The picture is by no means overdrawn, and a careful study of it ought to show us where we stand and how we should proceed for our own welfare and for the welfare of others.

The news of the establishment of the Hindu Maha Sabha under the leadership of some of the great men of the Hindu community had sent a thrill of joy into the hearts of the people of Rampur; and when it was announced that a local Hindu Sabha was to be founded that day people flocked from far and near to hear what new gospel had come down for their betterment. Men of all ranks and grades had gathered: Brahmans, Rajputs, Rabhans, Kayasthas, Banias, Kurmis, Goalas, Pasis, even Chamars and Dusadhs, for it had become known that this was

going to be a Sabha in which the lowest of the low could join freely and without objection.

Pandit Piem Narayan Misra was by common consent elected to preside at the meeting. After thanking them for the honour done to him he said that the time had now come for them to put their social and religious house in order even as they did with their houses of mud and brick and mortar. When these clay tenements began to leak, people were seldom slow to look after their repairs. Neglect not only increases the cost but it sometimes brings on a sudden disaster; the roof falls and buries the whole household—the innocent and the guilty alike—So if we neglected to adapt ourselves to the hanged conditions of the time in which we are living we shall all, i.e. high and low alike, have to thank ourselves for any mishap that might overtake us. We have but to look round to see what mischief has already been done by our apathy towards our brethren of the low castes. It is that same apathy which is responsible for the situation that has now arisen and demands a speedy solution. If we had only treated the poor and the low with love and consideration, if we had only refrained from heaping indignities and cruelties upon our unfortunate brethren, we should not have had to witness these riots and outrages upon our religion and upon our honour. Six crores of our brethren have become lost to us—not so much through the violence of others as through our own heartlessness. We stand guilty to-day before the eyes of the whole world—our treatment of the *Achhuts* is a standing reproach to us. To-day we have come together to right that wrong—and to take steps to remove those further evils that have followed in the wake of that original sin.

Several resolutions were passed regarding the establishment of a Gymnasium, a Pathsala, a Seva Samiti and a Dharm Sabha.

Thakur Jodha Singh made an eloquent appeal for unity, sympathy and co-operation among the members. He told them that they had slept too long, they must wake and realize their position. New world problems had arisen. They were no longer confined within the Himalayas and the Sangal Dwipa, they had to reckon now with Europe and America, China and Japan, Australia and Africa. The seven seas that were so formidable and forbidding hitherto must now be ploughed and crossed and ridden over. The great Piasasi, the Asoka of immortal fame, had sent his missionaries to Ceylon and Burma and China and Tibet. The time had now once more come when it is necessary to send out missionaries to America and Europe—lands where the gospel of spiritual knowledge is badly wanted. Such noble work it would be impossible for us to do so long as we are tied hand and foot in the meshes of the caste system.

While these speeches were being made, people had begun to speak out their minds and to discuss the several questions that arose one by one. Many of them were curious to know what these fine speeches really meant—were they going to abolish caste? Any way, before the meeting had come to an end, up rose Chamroo Dhobi—whether of his own accord or at the instigation of others it is not known—and asked the President for permission to say a few words. Now Chamroo was a most pious man, God-loving, God-fearing. He loved to hear Kathas, and to help the needy and the sick, and his gifts to the Brahmins and Sadhus were neither few nor small. People therefore were only too glad to hear such a man. He said that he would not have opened his lips but such an opportunity might not come to him again. He had a spiritual doubt—and it would be a great solace to him if his doubt were removed. He had heard it asserted many a time that every man, high or low, had a soul; that soul was a part, an *ansh*, of God Himself. If that be true, how could any man, however low be *asudh*, impure? His body might be

now clean, now unclean ; but how could the man himself be impure throughout his whole terrestrial life ? And impure to such a degree that if he touched some food and if that food was eaten by a high caste man—that high caste man would find no place in Heaven, for him there was only Hell to go to. He had thought over this question for long hours. In his own mind he was clear that he was not impure. His sons, too, were of the same opinion. But while he was content with his lot they were not. They had resolved to go to Calcutta or to some *Tapoo* (island) and work as labourers there and to bid a long adieu to a profession and a country and a religion which brought upon them nothing but contempt. He therefore asked them with folded hands whether they could do anything to avert such a disaster to his family.

For a minute it seemed that a bomb shell had been thrown into the assembly — all were struck dumb.

Pandit Prem Narayan, the President, then rose and said that it was precisely this important question of *Chamroo bhagat* that had been agitating their minds and which had led to the establishment of the Sabha. It was in fact to seek a remedy for such evils that they had met that day. It was a question too big, too momentous for any single man or body of men to answer and dispose of. It was for the community, it was for the whole country and the whole people to say what they should do. *Chamroo Dhobi* was satisfied and the meeting dispersed.

As usual Rampur was soon divided into two camps : the Progressive party and the Orthodox party. Discussions and disputations were frequent—Each party stood out for its own principles. Concession, compromise, any advance to meet the other party half way was most distasteful — especially to the orthodox section. Each party was looking forward to the fight to the knife that was to come off at the next meeting.

Meanwhile there occurred a death in the village. Mohan Lal, the village physician,

an old man who had long completed his three score and ten years, was dead. He left no relations. He had no man of his caste in the village. He belonged to some obscure Vaishya caste and no one remembered that any high caste man had ever condescended to take food at his house. So when the village barber went round informing the village people of the sad occurrence, there were few who evinced any real concern in the event save giving vent to the usual conventional expression of sorrow we indulge in. It soon became known that the orthodox party looked upon taking any part in the funeral of a low man as objectionable. It was also hinted that if the hot heads of the Progressive party took any active part in the funeral serious, questions of caste would have to be faced. To add to these difficulties, the river was good five miles off, the day was extremely cold, the mourners or such of them as would choose to join, would have to go all the way barefooted, bareheaded, with a Dhoti on and nothing else, and must return after the cremation and a bath drenched in their wet cloth. The trial was too severe. The soul of the Hindu took refuge in the sublime heights of the Shastric injunctions. It was therefore late in the afternoon that the funeral procession started with only 6 or 7 men of the Kahar and Kurmi and other low caste men who had courageously volunteered to perform the last duties to a dead brother—who had devoted all his life to relieve their pain and sufferings. It was not a new experience. It is a very commonplace occurrence in a Hindu village. Excepting in cases where a dead man happens to have a large number of relations, this question of conveying the dead to his last resting place (if we may use such an expression) becomes a most difficult one to solve. We have known cases where no amount of entreaties could bring together even 4 men to make it possible to carry the dead. In large cities the dead have to be carried on tops of *ticca gharries*. Ah ! To such a pass has the Hindu come. Such is the honor paid to the dead by the

Spiritual Hindu ! Instead of sympathy there is only heartlessness. And we pride in our spirituality. Shameless fools we are !!

The question raised by Chamroo Dhobi had set the ball of criticism and discontent rolling in the village of Rampore. And the sad experience at the funeral of Mohan Lal—though it would have been a most common affair in other times—added a good deal of fuel to the fire that was burning in the hearts of many whom Providence had refused the honour or privilege of being twice-born. The revolt was already there working silently. An open revolt was only a question of me.

Take heed, timely heed, O ye our brethren of the High Castes ! The revolt of the so-called Lower classes will not be a whit less cruel or less disastrous than the great French Revolution of which we hear so much. It has already begun. Open your eyes and take heed.

The next meeting of the Sabha was held on the following *Purnima* day. The gathering was even larger than before. Already people were discussing hotly in groups of fours and fives. The atmosphere seemed surcharged with some electricity. The proceedings began. Pandit Prem Narayan took the chair. Master Murli Manohar had come among the rest and all eyes were turned towards him. He was the loveliest and gentlest boy that the people knew—but an ardent lover of *Kirtan*. His voice was that of a siren. People would come from distant villages to hear his Bhajans. His songs were songs of Love and Devotion. “A national song, a national song,” however, the people cried.

And a veritable war song it was that he gave. There was excitement, determination in every eye. The young men looked wild with passion. Loud and frequent were the bursts of cheers of applause that greeted the musician. What a passionate appeal it was that he made at the end—for justice—equality

—fraternity—for unity—and for united action. The example of Japan was cited. How the brave *Samurai* and the other great and noble men had voluntarily given up their lands, their wealth, their rank, their all to make their nation and their country great. All invidious distinctions, almost as rigid and cruel as our own, were clean swept away, and a real brotherhood was founded—broadbased upon mutual sympathy, regard, and co-operation. The consequences were most gratifying—their country rose—foreign aggression ceased—wealth and prosperity returned to an extent undreamed of—victories followed upon victories—honors and distinctions came thick—all sacrifices that the people had so cheerfully undergone were doubly and trebly repaid. Similar were the sacrifices demanded of us. Were we ready? Were the sons of India ready? Where were the sons of the Rishis of India—of Gautam and Kanad, of Rama and Krishna, of Arjuna and Bhisma, of Karan, and Nal and Harish Chandra? How did the curse of selfishness enter into both mind and spirit and blood of India? Who gave it? Who was it who pronounced it upon our head? Who could free us from it? Our own efforts, our own will, our own determination, none else. The illusion of contempt for the poor and the low must go. A higher feeling should animate us. Higher and higher we should raise our less fortunate brethren. There lies our Duty. There lies our glory. On! On! To glory On!

Thakur Jodha Singh rose to move the first resolution. He said that the question raised by Chamroo Dhobi was a most important one; it was a question on the right solution of which depended the future of the Hindu race and Hindu religion. A religion should teach us respect of persons. In its eye all must be equal. When we go to the temple we should leave our guinea stamp behind in the treasure chest. He knew he would be told that a Chamar and a Brahmin could by no miracle be made

equal. He had no hesitation in asserting that if the Hindu religion could work no such miracle it had no business to stay, it should make room for some such creed as could bring about such miracles, and the sooner the better. He asked the assembly, in bitterness, whether they hoped to carry these distinctions to the other world. He asked them to consider whether they were not already falling into the pits they had dug for others. What a growing number of the Brahmins, Rajputs and Vaisyas were now worse off than the Sudras, and were they not in fact serving the very Sudras whom they so much looked down upon; their very status in caste had become a sting, a curse to them. And how could they dare to say that a Chamar or a Dhobi could not be uplifted, aye even as an equal to the Brahman, when other religions are able to lift him up. Hundreds of thousands of men were walking to-day on the bosom of India as good as any Pandit or Acharya could possibly be whom we had in our pride refused to keep in the Hindu religion. A more damaging, discreditable record it would be difficult to find and the Hindus if they had any conscience, ought to hang their heads in shame. He would not be surprised if his appeal fell on deaf ears. Nemesis cannot be cheated. The justice of God cannot be averted. The wrong already done was too deep to escape punishment. It is the characteristic of all great evils that the evil-doer cannot check himself in his mad course though the gulf might be yawning right before his face. Though pain and anguish were growing at his heart, though he knew that his cry was a cry in the wilderness, he would do his duty, he would urge them to accept his resolution, viz. *That this Sabha do accord its sanction to the equal status of all men who accept any of the Hindu faiths as their religion.*

To make his position clear he added that Religion and Society were two different things. He pleaded for religious equality only. All followers of a religion are entitled to receive equal treatment.

Standing in the temple of God one member should not have the audacity to say that he could not take food from the hand of another. The social edifice was differently made. Its foundations rested partly on wealth, partly on learning and partly on power. Obviously therefore there could be no equality in society—at any rate, he had no scheme to offer as to that. He pleaded only for religious equality. So that a man taking food from the hands of a Chamar should not be able to say that he had done a sinful act, that he had thereby shut the door of heaven upon himself—that God would call him to account for such an act. Society, if it liked, may look down upon him but who could honestly say that God would regard such an act as a sin, as a transgression of any moral or religious law? Thousands of men went to jail, Brahmins, Rajputs, and Vaishyas—lived there with the meanest and the lowest—ate with them and worked with them—but when they came out, they came out as good Brahmins, Rajputs and Vaishyas as when they went in. If the jail could make them equal without a harm why not the Temple? If a tin of Huntley Palmer's Biscuits is *pavitra*, if a bottle of Rahim Khan's Soda Water was *pavitra*, why should the PRASAD offered by a Chamar be pollution? Perhaps the Chamar was unclean in his habits. Was that so? Make him live clean and pure. Ennoble him. Raise him. But no. Even if he were to become a Kabir, a Kahar would consider it a pollution to take a glass of water from his hand or even to take a morsel of food beneath his roof. The time had come when they should open their eyes, and have a wider outlook. Was our religion incapable of ennobling the lives of the mean and the low? And how does it ennoble them if they are unfit to hold a cup of water to a dying man? Kabir was great. Thousands are his followers—but if he were living now, these followers of his would cry pollution at his touch. Could pride and insolence go further? We were not honouring our religion, we were dishonouring it. We were degrading it in the eyes of the world.

The subject was large but he thought he had said enough to make it clear that the time had come when they should rouse themselves and see in what a different world they now stood from that in which Parasar, Yajnavalkya or Manu lived. And if they submitted to the charges made by the British Government in many of their laws and customs it was nothing but perversity and that of a most regrettable thing to cling to customs that did no good but a good deal of injury. They had to look to the unfavorable surroundings in which the wheel of Time had placed them —how many and how strong were the nations and races and religions that were pressing in upon them, their tentacles cast round in every direction—and if they did not now take good care—all that he could say was that they perhaps might escape the doom that was hanging over them but their children's children would not. If they had any love for their country, for their children and for their Religion they must open their eyes and bestir themselves. When Thakur Jodha Singh sat down he believed he had made some impression; and although he might not be able to carry the day, his position was unassailable and his opponent would not be able to put forward anything formidable, anything of weight and reasonableness. He was soon undeceived.

There were several youngmen eager to put up a fight, but who is it who has already sprung on his legs? His eyes have no lustre but speak determination; his face beamed not with anger but with unspeakable contempt. It is the old Pandit Atal Nath Sukul, the priest and Pujari of the village. Thus does he deliver himself:—

I have not passed the B. A. or the M. A., Examination, nor even the matric. I am not a great Pandit also. But I know my religion and my God, the great Mahadeva. In his service I have spent my days and only thus will I close it. I have almost completed my journey and would not undo my life-long Tapasya at any body's bidding. Let others do what they like.

From to-day I vow I won't take food from the hands of any of my *yajmans* (clients). If they are bent upon going to *Narak* (hell) let them go. We know *Kali-yuga* has come and will do its work.

But I have one question to ask. Why do not Mahatma Gandhi and Pandit Madan Mohan Malviya tell us to eat with the Chamars? Why do not the Pandits of Benares say so much. Are they less learned than Babu Jodha Singh who is teaching us our Dharm? Can he tell us how *Dharm* will protect us when we shall eat with the Chamars. What is *Dharm* if not eating? I tell you all I will not take water from your hand from this moment: Do what you like.

A silence as of death fell upon the assembly. Even Thakur Jodha Singh could not summon courage enough in the face of this bold statement and determination to go on with his fight. Here was a warrior fighting with a clumsy weapon, without a weapon, but with determination and stubbornness and certainly success would be his if he had even a semblance of justice and righteousness on his side. It is not arguments that win in a fight. It is determination to win or die that is the secret and that we have yet to learn. Let determination meet determination and there can be no doubt that right will triumph over wrong. Everybody advises but no body has the heart to set an example. All the pious resolutions of the Maha Sabha will end in nothing if they are not backed by action—action—action right and just—thoughts translated into acts. You can not make any solidarity from where you have not sown the seed of solidarity. You cannot make sands into stone without the requisite element of affinity that must unite them. You may organise any number of Sabhas. They will be like those we have already among us, a conglomeration of units warring against each other—not integrating but disintegrating. It is the unifying principle in force that will unite scattered masses, not the mere fact of bringing them into proximity. In

proximity they already are but there is no force to weld them into one. The Mohammadans have no Sabhas but they have always been one. As soon as a Hindu becomes a Muhammadan he looks upon himself as a defender of Islam, he can go to the Masjid and stand side by side with even the Khalifa, nobody would dare to move him an inch from his place, he forgets his idolatry, he is now able to worship his God without a stone image—a feat which our greatest Pundits say they are unable to do, he dresses as a gentleman, he begins to partake in a national life, he would now lay down his life for a brother in some distant land—a feeling of which he had no conception before—in short, within a few years, he is for all practical purposes a superior being to the pundits who used to look down upon him as an *achhut*—an untouchable. Thus transformed here he stands—his love transferred from you to a foreign country and a foreign religion and a foreign people—because you cared not for him—you despised him and threw him out—and here are millions more of his brothers who are still uncared for—still despised—and left in utter degradation—whom you even now REFUSE to uplift. They are your brethren but you have no compassion for them. You take no thought of the day—which is not far distant—when they will have to be reckoned, with the more disastrously if they happened to be—in an opposite camp. How painful it is to think that hundreds of thousands of our brethren have been driven out of our fold by our sheer folly and thoughtlessness. No missionary ever came to convert them—no creed, no faith, no Kalma took them away—it was this *chhut* which put them out of the pale of Hinduism, it is we who are responsible for their going out—at any rate, for a vast number of them—and not any outside influence.

We are in urgent need of clear and courageous guidance. The blind have led the blind far too long. Let those who have a clear vision now guide and direct

and lead us out of poverty and degradation to prosperity and honour. Has the Sabha courage enough, wisdom enough to do this? —

Our duty therefore lies in removing the cause which has given rise to the evil. Religious inequality should be removed. There should be no privileged classes. All must be equal in the Temple of God. In society there may be classes but not in the church—in the *Dharma*. No one should be able to say that it would be his lot to go to Hell,—that it would be a sin in the eyes of God if he were to eat or live or mix with any other follower of the Hindu *Dharma*.

Is the Maha Sabha prepared to say all this?—Is it prepared to take any practical steps to strike at the very root of the evil? or will it tamely submit to be guided by a coterie of Purdits whom God has given no eyes to see and ears to hear—whom an ignorant age has installed in Temples and Pantheons even as they have done Stone images and Logs of wood? Will it do some real, earnest, momentous work for which the hour has come or will it complacently content itself with uttering some pious platitudes and then weep and lament for the down-trodden condition of the Hindus? That is very sickening—this lamentation—evergrowing lamentation, without once an effort being made to set matters right. It is work, action that will effect your salvation not sighs and moanings and upturned eyes—or the gnashing of teeth at foreigners. Japan purchased its greatness by one master stroke of courage—by the privileged classes giving up their privileges and their lands—at one stroke. Cannot India do the same if she has the will and the wisdom? It is the will that is wanting. And what great sacrifices are there that we are asked to make. Not the giving up of lands and wealth—but of our caste status, -caste prejudices—which we are every day violating for our private conveniences and gratifications but which we would not openly give up for our less fortunate brethren. We eat

prohibited food in hotels with Mohammedans and Christians but we would not eat with other Hindus. How many Brahmans, Kshatryas, or Vaishya, are there who have not eaten Huntly Palmers biscuits, the bad adulterated Ghee we are so much fond of, the bone-dust cleaned sugar we must eat with such relish and satisfaction? But the touch of a Goala would spoil our *Roti* and send us and our forefathers to eternal damnation. It is this sentimental superiority—this affection that we are to give up. Gokhale, Gandhi, Tilak—all orthodox pandits—crossed the seas, lived with Europeans, ate bread and drank water with them. Will the Maha Sabha support us if we do the same? Cannot the Sabha openly declare that sea voyage is permissible to the Hindus—that every Hindu can do what Gokhale, Tilak and Gandhi did.

If the Maha Sabha wish to be the real representatives of the Hindu people—of the

millions—let there be due representation of all classes in its assembly and let important practical questions be taken up, discussed and clear definite pronouncements made for the guidance of the public. Let it remember that by its performance—by its practical work—we shall judge it. This is a better field of work than even the Congress. Here you have already got Self-Government. Let us see how you acquit yourselves in this sphere. Have you the courage and the good sense to tackle the really important questions? Have you the wisdom and tact to solve them. Have you the genius to guide, to control, to lead the people to progress and enlightenment. May God grant you a courageous heart and a clear head—and a long successful career. Such is the silent prayer of the millions of Hindus whose right to equal treatment remains unrecognized.

THE WORLD OF BOOKS.

Yogic Sadhan. By Uttara Yogi
Published by the Arya publishing
House, College St. Market, Calcutta.
Price As. 10.

The editor introduces this book in the following words:—

This booklet is a practical guide to the integral system of Yoga propounded by Sri Aurobindo Ghose. The lengthy processes of the Hathayogins and Raja Yogins have been abandoned, and the Sadhak starts directly with the Will, which purified and irresistible, swiftly transforms the human nature—his mind, Chitta, Prana and the physical body,—rendering it a fit instrument for the unhampered play of the Divine in man.

Songs to Myrtilla. By Shri Aurobindo Ghose, Published by the

Arya Publishing House, College St. Market, Calcutta. Price Rs. 1/4.—

A collection of poems most of which were written by Shri Aurobindo Ghose when he was yet in his teens, and which were circulated in a limited circle of friends at the time, has been published for the benefit of the general public. The poems are full of pathos and give indications of the future master-thinker. One does not miss even in them the poetic gift of the juvenile writer who, when grown up, was to turn that gift to such good account. His mastery of diction and his judicious use of imagery, forming a cover, a mere cover, over a deep mine of fathomless feeling, though none of these characteristics has yet been developed to its ripe

stage, a stage which was to come later, are present in an incipient state, even in those early compositions.

The coming race. By Nolini Kanto Gupta. Published by the Arya Publishing house, college Street Market, Calcutta. Price Rs. 1/4.

In the toil and turmoil of to-day, in the struggles and skirmishes of the present, in the pangs and throbs of the age that is passing, the author perceives the coming of a to-morrow, the advent of a future, the birth of a new age. In the past we have worshipped Reason. Alexandrian culture has lorded it over us till now. The New Age will be the Age of Intuition. Nietzsche's cult of power is not the cult that appeals to our optimistic author. Power, however grand and over-awing, is yet an Asuri, non-divine principle. Even Bergson's intuition is too narrow to convey the spirit of our writer's dream. He will have Humanity metamorphosed into Divinity. A harmonious commingling of the individual and of the community is what our author aims. Not by Defence Reaction, nor by Sublimation but by Transubstantiation will he eliminate the animal in man. The papers which the book comprises are essays in idealism which youngmen of the day will do well to read and absorb.

Indian Teachers of Buddhist Universities. By Phanindra Nath Bose M.A.. Published by Theosophical Publishing House Adyar, Madras. Price cloth Rs. 2/8/- Board Rs. 2.

The author has laid under contribution some of the latest research in Tibetan Buddhism and dug up names of ancient teachers in some of the

Buddhist universities of the time. The description written in the dry-as-dust style of research, not in charming glows of a romance, is yet a picture to conjure with. The three principal universities, viz. Vikrama Sila, situated at Pathaghata near Colgong, in the District of Bhagalpur, Nalanda whose site was the modern village of Baregaon, seven miles north of Rajgir, in Bihar and Jagaddala in North Bengal are simply touched upon in this brochure. The first of these universities alone made provision for no less than one hundred and fourteen learned men of whom one hundred and eight were professors. The second, i.e. Nalanda accommodated at one time as many as ten thousand students. It was to Nalanda that Fa Hien and Yu Chan the famous Chinese pilgrims paid their visits. These universities served not only as centres of Buddhist learning but were also the monasteries that trained Bikhshus for the promulgation of Buddhistic doctrines. A list of a few of the Pundits attached to each of the universities, has been compiled by the author and their writings, most of them in Sanskrit enumerated. Some of these writings are available at present only in their Tibetan translations. The time of which the author speaks was that, during which Tibet was yet receiving with welcoming arms the teachings of the Lord Buddha. The story of a Nepalese and a Chinese princesses, won as prizes of war, converting their common husband, by conjoint efforts, to their own faith, so that the conqueror by dint of sword, became vanquished by the covert force of faith, may well form the subject of a Buddhist romance.

प्रभा—Edited By P. Makhan Lal Chaturvedi. Published, By Pratap Pustakalaya Cawnpore. Annual Subscription Rs. 5.

This is an Arya Bhasha monthly, with leanings more political than literary. It is playing a very useful role in Arya Bhasha literature, in as much as it spreads broadcast the spirit of patriotism, of pride in India's past, and of selfless service in the cause of India's freedom and upheaval. The articles it publishes are thoughtfully written and are brimful of useful information.

माधुरी—तुलसीसंख्या—Edited by Shri Dularelal Bhargava, and Shri Rup Narain Pandey, Lucknow.

This Arya Bhasha monthly, began being issued last year. In almost all its issues, it has maintained the high level of efficiency with which it started. Its latest issue is the Tulsi Number, so named after the great Hindi poet whose death-day anniversary it commemorates. The articles

are all full of useful information, and a result of careful study. The poems are by well-known poets. A large number of illustrations, two of which are coloured, is a special feature of the journal which adds considerably to its attractiveness. By the success it has achieved in its very first year the Mahduri has made its place in the periodical literature of Arya Bhasha secure, and if it goes on as it has begun, we can predict for it a highly beneficial career.

Welfare Edited By Messrs Ramananda Chatterjee and Ashoke Chatterjee, Calcutta. Annual Subscription Rs. 5.

The name of the learned Editor of the Modern Review appearing also as the Chief Editor of this journal is a guarantee of the efficiency of this his later attempt too. Its criterian in the choice of its articles appears to be their practical usefulness, not simply their literary relish. Special attention is bestowed on the get up of this monthly, which has, from the beginning, been a thing of beauty.

EDITORIAL REFLECTIONS.

THE HINDU MAHASABHA.

Till only a few months ago, the Hindu Mahasabha was treated with scant courtesy even by the Hindus themselves. The great leaders, the broad-minded Hindustani-Hindus regarded it with open contempt. To them it was inconceivable that Hindus could have any communal interests

apart from those they were called upon to safeguard as Indians. The Moslem League appeared to them to be a Mohammedan folly, for which concession was necessary in order to appease an ignorant section of the populace. It was the persistence of the Moslem that compelled unavoidable attention and even advances. Sessions of the Con-

gress and the League began to be held at the same place and in the same days, to secure joint attendance of the members of the two communities. With all the appearances of an all-India body, the Congress received the recognition of the Moslem as a representative assembly of the Hindus only, to supplement the deliberations of which, separate proceedings of a Moslem Congress were needed. The folly of the Moslem proved to be wise. While Hindu interests were merged in Indian interests, the Mohammadan was from the first allowed a separate, a special share in the political deliberations, and if possible, also in the political achievements of the country. It was considered sound statesmanship to spoil completely the child that was bent on being spoiled. The Khilafat issue was tagged on to the issue of the Swarajya, and a standing was given to the Committees of Khilafat which was not a whit lower than that of the Congress itself, so that when Committees sat to consider some all-India question, separate representation was allowed to Khilafatists. In the councils of the country, the voice of the Moslem reigned high. The Hindu, if he, too, ventured on a folly similar to that of the Moslem League was reprimanded in time. The Hindu himself fought shy of asserting the voice of his community. And if to-day Hindu India has changed its outlook on itself, thanks for it are due to that same Mohammadan high-handedness. The Hindus have been cudgelled into a sense of insecurity, which has, as an inevitable consequence, brought in a consciousness of the unavoidable necessity of adopting measures of self-defence. Hence the noise for a Hindu Sangathan. Hence,

too, a successful session of the Hindu Maha Sabha.

THE PRESIDENTIAL ADDRESS.

The Presidential address of P. Madan Mohan Malaviya, whom all sections of Hindus, Buddhists and Sikhs included, unanimously elected to the chair, was a comprehensive, if somewhat rapid survey of the situation with which the Arya community finds itself confronted to-day. With his usual eloquence and emphasis he brought home to his hearers the disastrous effects of the physical debility of the community, a result of the social evils that for long have been eating into its vitals. The address was lengthy and took a fairly long time to deliver. A few extracts from it, however, will surely be found of interest and benefit by the reader.

"Why was there not unity at present? It was due to their own fault. Friendship could only exist between equals. If the Hindus made themselves strong and the rowdy section among the Mahomedans were convinced they could not safely rob and dishonour Hindus, unity would be established on a stable basis. Standing in the holy city of Benares on the banks of the sacred Ganges he could declare on oath that there was not the least idea of enmity or hatred in his heart towards any Mahomedan. But he surely wanted the Hindus either to die or preserve their self-respect. He would be equally sorry if the Hindus committed any atrocities against any non-Hindus. The incidents at Katarpur had as much shocked him as they had shocked any Mahomedan. Whenever and wherever a rupture might be threatened between Hindus and Mahomedans they must try to settle the differences by mutual goodwill. But whenever these attempts might fail, they must be ready to protect themselves. It was therefore incumbent

on them to devise means to organise and strengthen themselves as a last resource against unscrupulous persons."

"For this they would have to remove the evils that had crept into Hindu society. First of all they must revive the system of Ashrams in a modified form, if necessary. The essence of the system was that they must see that their boys cultivated full physical strength and intellectual maturity before they entered married life. Let all boys and girls be educated. If Government could not introduce compulsory primary education, the educated section could easily teach reading and writing to their illiterate brothers in their leisure time. Let them open Akharas in every Mohalla where every boy must be compelled to cultivate physical strength. Let them cut down expenditure on marriages and other ceremonies and fashions and luxuries and spend more on food."

"The so-called depressed classes were in their own way true Hindus and contained men at whose feet he would unhesitatingly bow his head. If the Hindus could associate with Mahomedans and Christians, whose mode of life was so different from theirs, how could they refuse to associate with the so-called untouchables who were Hindus? of the worst of them, viz., the sweepers, it could be said that their work was degrading. Even if it was so, the pollution was only physical, which could be easily removed after proper washing. But what of the inner pollutions from which even higher caste men, including himself, were not free? Therefore they must allow the so-called untouchables to come to their meetings, to send their children to their schools, to draw water from their wells and to have *darshan* in their temples. If necessary they might allot different sides of a temple or of a well to different castes, but every Hindu must have access thereto. Let them try to inculcate in their brethren higher ideas of physical

cleanliness, but let them not boycott their own flesh and blood."

"At present there were seven crores of Mussalmans in India. Of these not more than fifty lakhs were immigrants from Mahomedan countries. The rest were Hindus who had been willingly or forcibly converted. Even now Mahomedans as well as Christian missionaries were actively converting Hindus, and even unfair methods were occasionally employed. As long as fair methods were employed, they had no right to complain. But they must adopt some means to prevent the continual decline in their numbers. How could they save their religion and civilisation if their numbers continued to decline? They must, therefore be willing to take back into their fold those Hindus who by compulsion or mistake adopted any other religion but now wanted to come back. The case of the Malkana Rajputs was even stronger, as they were still practically Hindus. There was no question of inter-marriage or inter-dining with persons reclaimed. That could only take place between persons belonging to the same caste and so the reclaimed persons should be admitted into the caste to which they originally belonged after Prayashchitta. Even Mahomedans must be allowed to become Hindus if they had faith in Hinduism. In ancient times Aryan Rishis took non-Aryan communities into their fold of Hinduism. If the Hindus could make up their minds to re-adopt that policy, the Hindu community would be freed from the menace that was threatening it and would again become powerful and strong."

The recommendations of the Panit, considered from the point of view of the urgent necessity of a general change of outlook of the Arya or as it is mis-named, Hindu society, to-day, are, no doubt worthy of the great leader who undertook to reorganise that society. Only when he comes to apply those recommendations practically, his advice becomes a little hesitating and halting.

Instead of eradicating 'untouchability' root and branch, he would reserve compartments and sides of Hindu temples and wells for the separate use of 'Achhutas' and 'Sachhutas.' His old orthodox idea of keeping a 'paria' at an arm's length, cannot, even at this time of the day, be shaken off. Hindus that have turned non-Hindus he will reclaim, and will restore them to the caste, from which they relapsed, no matter what professions they have been following, and what sort of habits and moral and physical tendencies they have contracted, in the non-Hindu camp. Even born Muhammadans he will convert. He, however, is not clear as to what caste status he will give to these neophytes. With even a little consideration he will see that once he opens the door of Hinduism to non-Hindus, he must, of necessity, bid farewell to birth-determined caste.

RESOLUTIONS.

The resolutions passed at the Maha Sabha reflected the temper of the Hindu society as it is at present constituted. Had the venue of the Sabha been some other place than Benares, the tone of the propositions agreed to must have been considerably stronger. Kashi is the citadel of orthodoxy, and though not so obdurate to-day as it used to be when the illustrious sage Dayananda alone stormed and took it, the place still represents what is backward and retrograde in the present-day Hindu motions of religious tradition and custom. The Pandits of the place opposed almost every measure, that was calculated to elevate and strengthen the Hindus both individually and communally. And they have left their stamp on almost all the resolutions passed. Th

reclamation of Malkanas has been accepted. All other *Shudhi* has, however, yet to be pondered over by a committee. Let us await the result.

The minimum marriageable age of boys and girls has been fixed at 18 and 12 years respectively. This comes of all the heated speeches deprecating the physical imbecility of the race, to remedy which celibacy was, as it ought of right to have been, so vehemently laid stress on. Will girls be able to support the burden of their household duties at the tender age of twelve? Will boys born of these minor mothers be strong enough to fight for the honour of both their families and country? Unless the Hindus adopt the *Shastric* standard of 25 and 16 as the ages of lowest male and female *brahmacharya* there is no hope for the dehabilitated community.

THE GENERAL CHARACTER OF THE SABHA.

We are glad delegates from all parts of this huge sub-continent met on a common platform, and their voices coming from various provinces and embodying various creeds and religious missions found a common focus. We wish the tie that connected them were stronger than the necessity only of saving themselves from a common enemy. Birth in a common land does give its colour to the various sects and religious beliefs that spring from it, yet it does not supply the bond that may knit them indissolubly for once and for ever. We wish Hindu sects were to find a stronger formula of unity than that of compatriotism.

The definition of the word 'Hindu' adopted by the Sabha is comprehensive,

perhaps too much so. In its eagerness to comprise within its fold as great numbers of people as possible, a loose sort of connotation has been given to the term 'Hindu.' One feels a natural elation at the idea that the Hindu denizens of the earth have, as if by magic, been at the Sabha, increased more than threefold. While on the one hand this numerical multiplication may prove a source of strength to the community, unmanaged these very numbers will be its weakness. If instead of sweeping within your embrace the whole populations of China and Japan with the exertion simply of a short breath, you were to place before the Hindus of India some positive scheme of religious belief and endeavour, a scheme on which all the sects could agree, you would solve the riddle of disintegrated Hinduism once for all. The day for giving the Arya community a compact religion and faith appears yet to be far-off. Hence the necessity for the Arya Samaj to redouble its activities in behalf of its propaganda, which alone can bring about uniformity among the followers of the Veda.

WHAT IS MAN?

Herbert Crooke, in a contribution to *The Theosophical Path* for August 1923, says much depends on our conception of what man is. Whether this world shall remain a theatre of war, that it is, or will become a haven of peace that humanity so much desires it should become, will be determined by the solution we find of this riddle. His own solution, as contrasted with the solution found by materialists is stated as follows :—

The modern preachers and teachers among us—the scientist, the psychologist,

the practical demonstrator—seem able to give us little more than a limited picture of man. They have elaborated a theory that man is the product of material evolution. For them Matter and Energy, which they consider are both indestructible, are the two basic conditions from which the universe, including man, springs. These two in their endless combinations produce the plant, the animal, and man. Man, they say, is the ultimate product of a system of so-called natural selection, whereby under stress of circumstances about him, he acquires habits and develops powers which have brought him to the state in which we find him today. From being arboreal in his early habits, he came to walk on his hind legs and thus had his fore-limbs free for use for handling, grasping, and throwing. This, it is thought, became the *making of the man*. From this condition, so these scientists say, gradually the mental faculties developed as the struggle for existence grew more fierce : and thus, as a creature 'of outward and inward circumstance,' we finally behold man the builder, the organizer, the superior brute that he is now thought to be, with many tendencies to a reversion to his earlier types and with unmistakable marks in his anatomy of tracks along the path of life that he has come.

Whether man was made "a little lower than the angels," as one old scripture has it, our scientists will not venture to say ; for what an angel is and how he may rank superior to man they can get no tangible evidence of. The highest product of natural development they see in the universe about us is Man as he is met with today. All the activity of scientific investigation seems to concern itself with what man has been in the past, and to trace out the supposed steps of his advancement from the condition of lowly savage intelligence up to the highest types of intellectual ability. But what the future may have in store for man, what the great purpose of his life may be, these scientific investigators, fail to tell us. Whether he shall develop on the lines of a soaring eagle, or attain the

great age of a Methuselah, or the wisdom of a Solomon,—science has nothing to say.

Some records of a mighty past have been unrolled by our antiquarians, and at the present time the world is simply gasping in amazement at the marvels of a past culture which are being brought forth from the latest discovered tomb of an Egyptian Pharaoh (Tutankhamen). The slow process of intellectual growth from the supposed savage state of mankind as a whole seems never to be clearly traceable; and the hypothesis of the evolutionist is in continual danger of destruction by every new discovery of the antiquarian which pushes back the origins of things farther and farther into those prehistoric times which cannot be measured in terms of years or centuries, but must be given the vague denomination of 'periods' or 'ages.'

Man is not his body. Each one of us gathers his body about him according to the tendencies of his own mind. The body is a vesture, an instrument, and it becomes molded to the form of the man within. As the body is used diligently and well, so does it respond to the requirements of its mental tenant, until in the course of nature it is worn out. When that happens the tenant seeks another dwelling. This is a very old teaching, for do we not find Paul the Christian Apostle saying in the writings: "Though our outward man perish—become worn-out, exhausted—yet the inward man is renewed day by day."

IS THIS EVOLUTION?

The following discoveries of geologists are cited in an article by Kate Hanson, appearing in the same monthly. They demonstrate the superiority of ancient culture over modern civilization. One wonders and asks, does this signify evolution?

In Nevada, that wonder-house of Dame Nature's relics, John T. Reid has discovered a human footprint and well-made shoe-sole, which he claims to be five

million years old, from his geological knowledge of the rocks in which it was imbedded. Microphotographers and analytical chemists of the Rockefeller Institute have shown the stitches, the twist of thread, holes for sewing and size of the thread—finer than we use today for shoes, and stronger. This shoe-sole was accompanied by footprints of dinosaurs, and their bones. Professor Reid and his associates are to be congratulated on their careful scientific analysis and their generous recognition of the age and excellence of the work, "the product of as high a skill as is exhibited at Lynn, or Brockton, Massachusetts."

From the Colorado Rockies come, another recent discovery, a figure, claimed to be of preglacial man, represented as seated, with a tablet on which are drawn characters and figures, which Mr. Jeacon, Curator of the Colorado Historical and Natural History Society, declares are the most remarkable likeness of dinosaurs he has ever seen. The signs and face resembled those of the Aztecs. Professor van Tuyl believes the statue and the rocks near which it was found date back to archaic times.

Red-headed skeletons in Arizona and beautifully wrought golden images recently found in the Ohio Valley, the American 'Valley of the Kings,' where King Tut's western contemporary is being sought, cause archaeologists to echo the words of Katherine Tingley, that America is older than Egypt, and of increasing numbers who claim its civilization was once superior

SWETAKETU'S BOAST REALISED IN 'DRY' AMERICA

It is in an Upanishad that an old king of Bharat, Swetaketu is represented as boasting that in his realm there was no drunkard. The picture they say, is overdrawn, as humanity, as it exists today and did presumably exist in the time of Swetaketu too,

finds liquor, as also brothels, an indispensable necessity. And yet America has had the hardihood in this hard, matter-of-fact, unsentimental age to enact 'Prohibition.' Has the regime succeeded? Let us turn to the testimony of an eyewitness who writes as follows in a letter to *The Indian Social Reformer*:

In the one month I have been home I have seen a great deal of America. I have been in large cities like New York and Chicago. I have been in small towns like the one in which I now am. I have been in cities with a population from 75,000 to 300,000. I have walked on the streets of these various places in the day time, in the evenings and late at night. I have talked with preachers and teachers, doctors and lawyers, manufacturing men and business men as well as the common abouring men. I still have to see a place which has not been improved since prohibition went into effect; I still have to see a street where a man cannot walk with perfect safety from the drunk and the thief, made so by drink; I still have to hear my first man say that he would like to go back to the "wet days."

In the week that I was in New York I did not see one person under the influence of liquor. I did not smell liquor on the breath of a single person I met on the street or in the street cars or trains. Eight years ago I was pastor of a church just outside of New York and I got to know New York very well. Eight years ago a "drunk" was a very common sight in New York especially along the docks and the places where the ferry boats land and take on passengers. Eight or nine years ago it was nothing unusual to have a man blow his liquor breath into one's face. Without a doubt liquor has not been banished from New York, but it is also true beyond doubt that the drops that

do find their way to the lips of man are not enough for one man in a thousand. Is Prohibition effective? I hardly knew old New York.

What I found to be the case in New York I also found to be the case in other cities and towns. Let us take a look at Chicago which somehow or other gained the reputation, unenviable in the extreme, of being the wettest spot in America. When I was a student in the University of Chicago in 1908 the locality of the Union Station was a terrible place. A person did not even care to leave the station to go out for a bite to eat because of the number of drunks and idle men that were there. The streets were full of the smell of stale liquor. A little over a week ago I landed at the same station with my family. Remembering what sort of a place it was in the days that are gone for good, I trust, I did not want to take my family out of the station to take a little stroll or make a few purchases. I went alone but I could hardly believe that what I was looking upon was a reality: every saloon wiped out and the building occupied by restaurants and dry stores. Since we had to wait until 11 o'clock for our train I took my wife and children out for a little stroll at about 10 p.m., a thing I would never have dreamed of doing fifteen years back.

Coming to my own home where I lived until I was twenty years old I found the same thing had happened. There were streets that I, as news-boy 28 years ago would never enter because of the tough characters that made it their resort. When I was home in 1913 these streets still had the same reputation. Now I had walked and lingered in these very streets and have not come across a thing that was objectionable. Places that we news-boys used to call "The Holes" are respectable restaurants and grocery shops and meat markets and

even ladies do their own marketing in them.

A friend drove me through a section of the city which years ago was known as the "red light district". This section was all cleaned up: streets were paved and clean: beautiful homes and even a few mansions had taken the places of the unpainted, going to rack and ruin homes that used to be there: beautifully kept lawns surround these homes. Instead of ragged and unkept urchins that used to make the place a scene of terror, there were well-dressed little children playing with carts, scooters, velocipedes and roller skates. I asked my friend whether the "red light" district had been transferred to another section of the city and he said that as far as he knew the "old booze hitter" who used to run the places of ill fame had died in a drunken fit and that the houses had been stamped out for good.

My sister who is a school teacher in one of the city's schools told me that the half-dressed and "blue with cold", children wearing their fathers' and mothers' old cast-off shoes when they wore anything at all, are now unknown. The children in this manufacturing section of the city come to school neat and well-dressed. They are also well-fed at home and each child, many of whom never saw a penny in the old days, now comes to school with money in his pocket or her purse and buys a pint of milk every noon, the amount the city's school authorities require each child to drink.

Many years ago when I was a salesman in my home city's chief clothing establishment, the manager said he hoped that prohibition or local option would never become a fact in our district because he knew it would kill all business. Well, Prohibition has become a fact. Has his prophecy become true too? Not a bit of it. I noticed that he no longer featured the cheap half wool and half

cotton mixture suits of the old day. Why not? Because there is no sale for that now. The men who bought those cheap suits then want nothing now but the best because they have money to pay for the best.

Who wore the silks and the satins and the broadcloths under the old regime? The saloon keepers and their families. Who wear them to-day? The laboring man, his wife and his daughters. Who had the motor cars in the old days? The saloon keepers and their families. Who rides in them to-day? The man who used to pour out his week's pay into the saloon keeper's pocket for the poisonous liquor he got in exchange down his own throat, and then went home to find his family without a crust of bread to eat.

The banker tells me that the savings accounts have increased in his bank by five times: the policeman says that he no longer has to watch the alleys but can spend all his time in controlling traffic: the groceryman says that he does not have any bills that he cannot collect because people pay "cash on the spot": the meat men and the bakers say that they are doing three times the amount of business in spite of the fact that there are more than twice the number that there were a few years ago and that all of it is good: the Educational officer says the cities are building larger and better schools all the time because the fathers now demand a good education for their children while in the old times they demanded only the money that their little children could earn in factory and shop. The social worker says that prostitution is rapidly on the decrease; the school teacher tells me that the average child's work is of a much better grade because the children are dressed comfortably, have enough to eat and attend school regularly.

**PROF. RADHA KRISHNAN ON
THE HINDU DHARMA.**

Prof. Radha Krishnan is the King George V. Professor of Philosophy in the University of Calcutta. He contributes to the pages of *The International Journal of Ethics*, an article headed the Hindu Dharma. Commenting on it, *The Indian Social Reformer* writes :—

In his article on the Hindu Dharma, professor Radhakrishnan explained clearly the relation between the Sanatan Dharma and the Varnashram Dharma, that is, the universal principles of Hinduism and the caste system. He pointed out that caste, as it is now, is a corruption of Post-Mahomedan times. Before that period men changed their castes, from the lower to the higher as well as from the higher to the lower, "When Hindu India lost political freedom," he said, "and the new rulers adopted a policy of proselytism, social initiative disappeared and law and custom became fetishes, with disastrous results for national solidarity."

Pantheism, he says, is the view which identifies God with the sum of things

and denies transcendence. Nowhere, he points out, does Hindu philosophy make God and the world identical and co-terminous. God always is infinitely greater than the world which is His work. The Rigveda limits the world as being only one fourth of the Purusha. If this is pantheism then, as Professor Radhakrishnan remarks, pantheism is an essential feature of all true religion. So also about the alleged pessimism of Hindu philosophy. The charge of pessimism is oftenest brought against Hindu philosophy by Christian missionaries. As a matter of fact, as Professor Hoffding says, an absolute pessimism has never yet been developed either in religion or philosophy. He significantly adds that absolute pessimism would only hold good for those whom some religions condemn to an eternity of pain. He denies that Buddhism can be called pessimistic. Professor Radhakrishnan following the same line of thought points out that the pessimism of the Upanishads is the condition of all philosophy. He quotes with approval Professor Bosanquet's profound observations "I believe in optimism, but I add that no optimism is worth its salt that does not go all the way with pessimism and arrive at a point beyond it."

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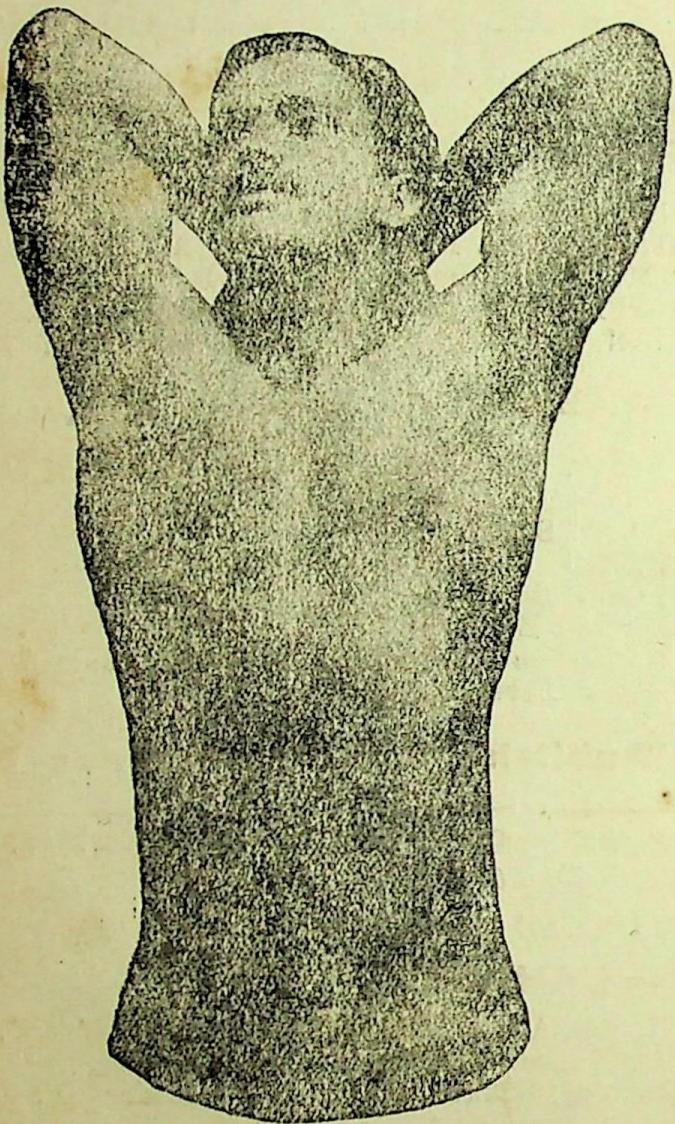
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STUDY OF MECHANICS FROM INDIAN ENGINEERING BOOKS.

(BY RAO SAHIB K. V. VAZE I. C. E.)

INTRODUCTION.

In Indian Engineering Literature I have not yet been able to find a text treating exclusively of Mechanics except यंत्राणव. However, references occur in Engineering texts dealing with mechanical contrivances by means of similes &c and the following notes are compiled from such references occurring in my studies.

In this world we always observe incessant changes taking place so that this world is compared with an ocean for these changes only. The power which causes these changes is called 'Energy.' The creation of this world or rather its manifestation is due to this Energy. In order that we may be cognisant of any thing it is

necessary that the thing should impress our body in some way or other ; and this impression is the work of Energy. Thus we can not know a thing which has not Energy in it and is thus unable to impress us. The widest impressions by Energy are called 'Space' and 'Time.' That we are cognisant of 'Space' by the extent of Energy is self-evident as 'Space' is the generalization or abstract of all extension. We are cognisant of 'Time' by the succession of the effects or works of Energy. The sense of touch is the instrument of knowing space, and thought is the instrument of knowing time. We may know time by the changes observed by the eye, but in a dark place or with eyes shut we know time by the

number of successive changes occurring in our thoughts. This is the reason why we miscalculate time when we are busy or quite idle. When we are very busy the successive operations of thought are so few that we think that the time past is short, while when idle the successive operations are so many that we think that a long time has elapsed. The oldest instrument of measuring time is the changes in the sky and the division of time into years, seasons, months, fortnights, days, nights &c. is due to the recurrence of the changes in the sky in succession. The world is thus like a file of which each page denotes 'Space' and the succession of leaves 'Time.'

Western Engineers divide Energy into three classes viz., (1) Physical Energy, (2) Chemical Energy and (3) Astrator Electrical Energy. Indian authors however divide Energy into six classes viz., इन्द्र, मित्र, वरुण, अग्नि, सुर्य and गरुतमान्. What is known as 'Gravity' in English is called इन्द्र, Chemical affinity is called वरुण, Electrical attraction is called मित्र, light is called अग्नि, vegetable energy is called सुर्य and Animal Energy is called गरुतमान् in Sanskrit Engineering. The Energy known as सुर्य is sometimes called हारिद्र and that as गरुतमान् is called रक्तद्रव.

Indian authors denote knowledge by a solid घन and in order to have complete knowledge of a solid it is necessary to have knowledge of its six sides and therefore complete knowledge is called घनांत्र or "solid knowledge" and

is composed of six sides. षड्ङ्ग, षड्दर्शन and such other words denote this complete knowledge. Of the above six Energies the first four are 'Passive' and the last two are 'Active' and this is denoted by the Accusative or कर्म case and Nominative कर्ता case in the following मंत्र counting them.

इन्द्रमित्रवरुणमग्निमाहुः ससुपर्णेगरुतमान् ॥

ऋग्वेदः

Indian authors classify all things into five classes according to the passivity of the thing. The most passive things are solids and are called पृथ्वी next to them come the Liquids जल the next is वायु gases, next comes तेज light and the last i. e., the least passive thing is आकाश. In order to obtain work from these five elements Indian authors specify five यन्त्र five मंत्र and five तंत्र which are defined as below.

मानवी पाशर्वाशक्तिस्तन्त्रमित्यभिधीयते ॥१॥

दण्डैश्चकेश्वद्भैश्चसरणिभ्रमकादिभिः ।

शक्तेः सवर्धकं किवा चालकं यन्त्रमुच्यते ॥२॥

मन्त्रज्ञा व्राह्मणाः पूर्वेजलवद्यादिस्तंभनैः ।

शक्तेहुत्पादनं चक्रुत्स्तन्त्रमितिगद्यते ॥३॥

यन्त्रार्णव

The physical force exerted by men or animals is called तंत्र. The mechanical contrivance by which a force is multiplied or changed is called यन्त्र. The production of new energy by the stoppage of water, wind &c., is called मंत्र.

The difference in the meaning of these terms is to be explained as under:—

तंत्र. Things prepared by the application of this force are never exactly one like the other; there are always minor differences. **तंत्र** Energy gets tired, i. e., it can not work for indefinite time continually. A man or animal who uses this force is required to be trained to use it.

यंत्र. Things prepared by the application of this are generally similar, **यंत्र** never gets tired i. e., it works continually so long as the worker works. A person who uses this force ought to know its use and nothing further. In a **यंत्र** Power सावित्री and Work सृष्टि can be interchanged i. e., if one has सावित्री he can get सृष्टि or if one has सृष्टि he can get सावित्री.

मंत्र. This power once produced goes on until the state of things continues. This power knows no mercy and is never tired. One may stop its action but that means so much loss. No deviation is allowable with this method. In **मंत्र** you can not interchange सृष्टि and सावित्री, सावित्री will produce सृष्टि but सृष्टि can never produce सावित्री. It tolerates no mistakes.

In short the working power of **तंत्र** is small but it requires few appliances and the power is under perfect control and can give some work even with deficient means. The working power of **यंत्र** is great in proportion to the num-

of appliances available and if there be any thing deficient it can not give its full outturn. The working power of **मंत्र** is very great, its work is very accurate but the least defect in the appliances is fraught with great danger; it requires many appliances and would not work with any the slightest deficiency; the least mistake would work disasters with the **मंत्र**. Indian authors therefore specify that the application of a **मंत्र** should be rarely resorted to and when it is resorted to, the user must be very accurate, careful and well trained i. e., he must be able to keep his mind and body under perfect control.

In Indian Engineering works **तंत्र**, **यंत्र**, and **मंत्र** occur as under. The terms स्वतंत्र, परतंत्र and सर्वकर्मस्वतंत्र occurring in Indian Engineering texts denote the ability of the worker to do the thing with his own hands; thus a man who is able to do the work with his own hands is called **स्वतंत्र** while one who has to depend upon others, hands is called **परतंत्र**. An artizan who not only does his work but is able to prepare & repair his tools also is called **सर्वकर्मस्वतंत्र**. A ब्राह्मण is not allowed to have anything done for him by others as that would spoil his **स्वतंत्रता** and in order to keep his **स्वतंत्रता** he is to live a simple life. A thing is called **सुयन्त्र** when the power employed is duly multiplied so as to be able to achieve the object in view. **दूरवीक्षणयन्त्र** is an instrument

which magnifies distant objects sufficiently to make them properly visible
मन्त्री, मन्त्रवृत् is a man who is able to use unknown or unused powers in the world ; any sentence which tells how the invisible or unused power can be used is also called a मन्त्र and the desired effect is obtained not by the recitation of the मन्त्र but by acting or working as is laid down in it.

अज्ञेभ्यो ग्रन्थिनः श्रेष्ठा ग्रन्थिभ्यो धारिगत्यगः ।

॥रिभ्यो ज्ञानिनः श्रेष्ठा ज्ञानिभ्यो व्यवसायिनः ॥

मनुस्मृति

Men who are able to read are better than those who are illiterate, men who know मन्त्र, by heart, are better than those who are able to read, men who know the meaning or object of the मन्त्र are better than those who are able to recite and men who are able to act or do as is specified in the मन्त्र are better than those who understand the meaning or object.

स्थाणुयं भागहारः किलामूदधीत्य वेदं न
 विज्ञानानियोर्थं । योऽर्थज्ञात्सकलं भद्रमश्नुते
 नाकमेति इति विधूत पाप्माः ॥ (यास्क०)

A man who learns वेद but does not know its meaning is simply a Post bearing the load of the Veda. One who knows the meaning or purport of the वेद obtains all the bliss when by his knowledge he is able to remove all impediments to the attainment of the bliss. Thus it is only actions according to the instructions in the मन्त्र that give bliss.

For attaining any thing some Energy has to be spent and this initial Energy is called सावित्री, and the outturn by the expenditure of सावित्री is called सूष्टि and the ratio between the सावित्री and सूष्टि as known by previous experience is called ब्रह्मा,

क्रियाशक्तिस्तु सत्यानां सावित्री प्रोडयते त्रुथैः ।

पुरानुभूतं यत्तद्वेस्तद्वद्वमेतिप्रचक्ष्यते ।

ब्रह्मानुकूला सावित्री सवदाकार्यकृतस्मृता ॥

यत्रार्णवः

Thus in order to obtain the desired effect one has to apply सावित्री according to the experience of our predecessors in the work.

In order to know the effects of a force सावित्री it is necessary to know the place of its application स्थित, its direction गति, and its measure मिति, and the time for which it is working युति. We can denote all these things by figures the आकृति, स्थिति, गति by a line, the मिति by the length of the line, and the time by a line at right angles to the first line and thus the calculations of all the work can be done by आकृति बीज (Geometry) or caculations by figures.

The method of treating mechanics in Indian Engineering is different from that of western Engineers and in this essay the Indian method is followed.

TABULAR SYNOPSIS OF INDIAN MECHANICS.

Elements वृथा जल वायु तेज आकाश.

Quality Hardness, Fluidity, Velocity, Heat, Uncontrollability, Inertness, un-

steadiness, Activity, Straightness, unknowability. Sage—कश्यप, वशिष्ठ, भृगु, अगस्त्य, विश्वामित्र, भरद्वाज, पतंजलि. Deity इन्द्र, वहण, चायु, सूर्य, मित्र, व्रह्म. तन्त्र—Beast पशु Fish मत्स्य Bird पक्षी Man मनुष्य Learned ज्ञानी Saint योगी. Sense—Feet, Hands Wings, Eyes, Mind, Self. यन्त्र—Lever दण्ड, Pulley चक्र (Toothed) wheel दन्त Slope सरणि Belt भ्रम. Appliances—Fulcrum अधार, Axle आंख, Teeth दन्त, Angle कोण Thread सूत्र, Surface आधिय, Rope पाश, Chain शङ्खःत्रा, Tube नलिका, Nut अधिष्ठान. Use—Cart रथ, Boat नौका Balloon, विमान Telescopē द्रष्टा, Information ज्ञान. यन्त्र—Breaking उच्चाटन, Controlling वशीकरण stopping स्तम्भन, Uniting जोरण, Killing मारण, Work—Blasting, Leading, Stopping, Concentrating, Annihilation of time and space Use,—Tunnels, Quarrying, Canals, Pipes, Sails, Fans Convex-lens, concave lens, Mixture, Solution, Churning, Rolling, Production of fire, Annihilation of Distance and time.

NOTE.—वशिष्ठ treats of hydrodynamics and भृगु of hydrostatics.

The modern machinery has up to now come to the wireless or to inventions for the annihilation of space; no contrivance for the annihilation of time is yet found out. When a civilization reaches this point it has reached its climax and begins to go down, degenerate and die.

SECTION 1.

भूयन्त्र OR MECHANICS DEALING WITH SOLIDS.

इंद्रसु देवताभूमेः कश्यपस्तद्विषिः स्मृतः।
तपः प्रभावात्तस्यैव काश्यपीयं क्षितिर्मता।

प्रभवः सर्ववस्तुनां आधारश्च जगत्थितेः।

स्थीर्यकांडिन्ययोगगांभ्यां भूरेवादौ प्रयुज्यते॥
यंत्रार्थव०

The deity of पृथग् is इन्द्र and its sage is कश्यप from the great troubles he took in ascertaining its qualities. The earth is called काश्यप the element of कश्यप. All things are composed of this element, all things rest on this earth, and owing to its stability and hardness it is the element which human beings employ first पृथग् is of two sorts viz. movable and immovable. All things such as stones trees, tables, pots etc. are called movable पृथग् and many things like fields, mountains &c. are called immovable पृथग्. When immovable पृथग् is broken to pieces it becomes movable पृथग् and when this movable पृथग् is put together with a cavity inside, it forms वास्तु or buildings or structures. Structures also are of two sorts viz., immovable and movable. Houses, temples, caves, palaces are immovable structures and carts, boats balloons, pots &c. are movable structures

The element पृथग् has to be dealt with in कृषि Agriculture, in खनि Mining, in रथ Roads and in वास्तु building—branches of Engineering.

तन्त्र.

(1) In Agriculture the earth is to be cut and turned over. This is done in nature by the boars with their spikes, by the bulls with their horns and by the elephant with its tusks. Men therefore prepared similar instruments,

viz. the plough शव्व similar to the spike of the boar, the pickaxe गोश्टङ्ग like the horns of the bull and the pick इमदन्त like the tusk of an elephant. These are the first tools used by man for breaking earth.

(2) In Mining deep hollows have to be cut into the earth. In nature this is done by rats बज्रवाहु with their fore and back paws. After this pattern जहजु शे हित bars of iron and phawaras were prepared by men for digging and removing earth.

(3) In Roads things are to be conveyed and this is done by headloads on the heads of men or on the backs of animals. These are called मैत्रायन removing by the heads of friends, आश्वलायन removing on horse backs and शौद्धायन removing on the backs of elephants; when carts come into use a fourth road or way of removing शाकटायन by means of carts comes into force.

(4). In Structures one has to prepare shady cavities. This is done in nature by the canopies of trees and men prepare the tents after the model of a tree with a central post like the trunk a canopy like the leaves and ropes like the tendrils of creepers. The trunk is called आधार and the canopy is called आधेश. The chief quality in a trunk आधार is that it should not bend and the chief quality in a canopy आधेश is that it should not be torn. When a canopy is very large,

it requires subsidiary supports besides the central support and these are called शाखा branches after those of the tree and the support with such subsidiary supports is called a गोपा or बलभी milkman or milkmaid owing to its similarity to a milkman carrying a basket full of milk pots on his head with the support of his hands. Thus the structure of the house is similar to that of a tree the foundations being the roots, posts the trunks, beams the branches, the tiled roof the leafy canopy and in place of openings in the leaves ventilators, &c. If the subsidiary supports are bent they are called किन्नर, and चानर monkeys, and these when they meet from opposite sides form an arch. These arches are बलयाकृति circular मालाकृति elliptical वृत्तखण्डाकृति segmental. In the oldest arches the stones of the arches went through in horizontal layers and thus the extrados of the arch was rectangular. The parts of trees are afterwards seen to be joined to each other by a glue-like substance and in houses lime or earth began to be used as mortar between stones after that.

यन्त्र

When the first tools were used with the hands alone, it was found that the reaction of the work was injurious to the hands. In order to avoid or lessen this reaction handles came to be used with the tools such as pickaxes &c. and these handles were called दण्ड. It was found that by the use of these handles the effect of the force applied was greater and this दण्ड

is the first mechanical appliance that was used by mankind. These handles were used with axes, hammers, spearheads, or pickaxes and phawaras. When these handles were used alone they were called यष्टि stick, when these sticks had hard rings at the ends they were called मूसल pestles. When these were made wholly of iron metal they were called अजुलोहित or bars वेधिनी.

These sticks or दण्ड are of three sorts viz., अज्ज straight, वक्ष bent and भग्न broken or elbow-shaped. Some sticks are used singly and they are called अयुगम while others are used in pairs and are called युगम. For using these दण्ड levers it is necessary to have a support कर or आधार and if the parts of the lever on both sides of the कर be equal it is called a समदण्ड and if the sides are unequal it is called a विषमदण्ड. The balance scale is अयुगम single and समदण्ड as its two sides are equal. A pair of nut-crackers, scissors or tongs are युगमदण्ड or pairs and विषम uneven as the distances of सावित्री and सृष्टि from the कर are not equal. Bent and crooked levers are used in many cases on Railway joints and in cabins. The multiplication of the सावित्री and its distance from the fulcrum is always equal to that of the सृष्टि and its distance from the fulcrum.

Consequently if we want to increase or decrease the force, we apply it at the long or the short arm. Thus for crushing a nut we keep the nut closer to the fulcrum and the power away from it or in a tong for removing a thorn we keep the thorn at the longer end and apply our force at the nearer one. Sometimes we apply our power in the best way we can, for example in rowing a boat we attach the boat near the fulcrum and apply our power at the farther end because the boat can not be attached at any other point. In a crane however we want to be able to remove the materials at the longest distance and hence we have to apply our power nearer the fulcrum, though by this application we have to exert a much larger force than is really required. In a pair of scissors when a lighter thing is to be cut it is kept at a longer distance and a thicker thing is kept closer to the fulcrum so that the effect of the force applied for cutting may be more or less as required.

Let us now consider the दण्ड levers used in Indian Engineering.

I अयुगमदण्ड or single levers.

त्रुला or Balance--It is a plain straight lever at the two ends of which weights भार are put. The hand which points in the center is called कर and the pivots and its base are called आधार and आधेय.

विषमत्रुला or uneven balance--is a bar suspended like the ordinary balance but the two arms भुजा are not equal. The weight to be weighed is

attached at the short end and on the long end the measuring weight is slides.

क्षेपणी the Pole—is a straight bamboo used for pushing the boat off the shore. In this the shore is आधेय, the end of the pole touching it is आधार, and the hands push and the sliding of the boat is the work done. This is also called नौका दण्ड.

अरिचि the oar—is a stick that is rested on water. In this the water surface is आधेय, the end of the oar touching it is the आधार, the hands push it and the sliding of the boat is the work done. This is called अरिचि (अरे: त्रायते तद्) saver from the enemy as it saves the boat from the pursuing enemies.

मत्स्यदण्ड the fishing rod—is also a lever. In this the earth is the आधेय, the end of the rod resting on the ground is आधार, the hand pushes it, and extracting the fish from the water is the work done. The modern crane is a मत्स्यदण्ड on a larger scale.

ऋजुरोहित the crowbar—is an iron bar for removing stones. In this the earth with a piece of hard stone is the आधेय, the part of the bar resting on this stone is the आधार, the hand works at the longer end, and removing or uplifting the stone is the work done. These bars are sometimes made bent or वक्त for facility of work.

पेषणदण्ड the Pounder is a भग्नदण्ड swinging at the corner : when one end is moved and that alone, the other strikes against the rice, or wall or door to be pounded. In Railway Engineering various forms of these are used in drawing signals or joints.

II युग्मदण्ड or Levers used in pairs.

कतरा Scissors--These are two levers joined in the center. The hand presses at one end and the cloth is cut at the other. According as more or less force is required the cloth is pushed nearer to, or farther away from, the pivot which is the आधेय.

खरडनी Crackers.—These are two levers joined at one end, the nut to be cracked is put between the two levers near the joined end and the hand presses at the other end.

कंकमुख The beak of a Crow or Tongs These are two levers joined at one end and the thing to be extracted is held at the other end and hand presses in the center.

All the above things are made with straight, bent, or broken levers as it suits the purpose or work to be done.

मन्त्र

The various kinds of blasting materials are the मन्त्र of पृथग्नी. In कश्यप संहिता Potassium chlorate or Nitrate यवक्षार and strong Sulphuric Acid रक्षोभूतल was used for this purpose. Some decoctions of herbs were also used for this purpose. In modern times this science has developed to a great extent and many blasting materials, both solid and liquid, are used for this purpose.

Another मन्त्र with पृथ्वी is इभपाद or Rammer. This is a great and heavy block of wood or metal that falls from a great height and strikes the heads of posts to be driven into the soil. These piles are recommended for foundations of bridges सेतु in marshy soils जंगल भूमि. कर्कट a sort of tongs held in old times the top शिखा of the इभपाद and was dragged by a rope ; at the top the narrowing of the distance pressed the tongs and lets down the weight.

In Modern Engineering steam and electric machines of various description are used for drilling holes, excavating and removing blasted materials. Pile driving machines of various types are also in use.

All the modern machines are only enlargements or extensions of the old ones to suit the modern steam-engine in its various uses.

SECTION II.

जलयंत्र OR MECHANICS OF WATER.

जलस्य वरुणोदेवोभृगुस्तस्य ऋषिः स्मृतः ।
दुष्करेणास्य तपसा वाहणिः सनिमद्यते ॥

यंत्रार्थः

The deity of जल element is वरुण and in sanskrit literature there are two वाहणि Hydraulic Engineers viz. भृगु and वशिष्ठ. Of these भृगु propounded the theory and rules of Stagnant (Statics) water and वशिष्ठ those of flowing

water. Water is in two states viz. stagnant or steady and flowing. The water in the ocean, tanks or pots is stagnant and the water in springs, pipes and rivers is flowing. The particles of earth are firmly attached to each other but the attachment of the particles of water is much less. If anything is dropped in water जल it is supported by it and the utmost strength the water can exert in this way is the weight of the same mass of water. If a thing is put in पृथ्वी it also supports it but it can not exert any strength until it is crushed ; that is the utmost strength that पृथ्वी can exert. But water is more discreet and when the weight of the thing put in it exceeds its own weight it allows it to pass through and if it be less it lifts the thing till the weight of water displaced is equal to the weight of the thing. As we go deep into water we find that the weight of water is greater as we go deeper and deeper. In the same way lower water has a more steady temperature throughout the year.

तन्त्र

In dealing with पृथ्वी our object was उच्चाटन to break and overturn it but in dealing with जल our object is वशीकरण to keep it under our control. The nature of the work and the appliances is therefore quite different in the two cases. In nature we find fish and tortoises working with water and the implements used with water are fashioned after these. We deal with

water under two heads viz., जल शास्त्र Hydraulics and नौका शास्त्र Navigation.

In Hydraulics we allow the water to work on us and in Navigation we try to work on water. We sometimes deal with standing water and at other times we deal with flowing water. If we compare our dealings with पृथ्वी with those with water we find that जल शास्त्र is similar to कृषिशास्त्र, कृपशास्त्र is similar to खनिशास्त्र and नौका शास्त्र is similar to रथ शास्त्र and तडागरास्त्र similar to रास्तुशास्त्र.

(1) Sage वशिष्ठ gives the following properties of flowing water in his जल शास्त्र.

(a) When water begins to flow the velocity of water flowing along the earth is less than that of water flowing on water. Water flowing at a higher level thus goes faster and therefore the end of flowing water is convex like the head of a fish.

(b) The top surface of flowing water is never level and straight. It is always convex like the back of a tortoise. One part is higher and the surface falls from this point to both the banks.

(c) The side on which a river is depositing silt is farther away from the highest point in the river surface and the surface of water there is the lowest in the whole section.

(d) The side on which the river is eroding is nearer the highest point and the surface of water at this bank is highest than at the other.

(e) When flowing water is stopped, the stoppage of the velocity exerts an additional pressure on the obstruction. This velocity is converted into the height of water and thus the water overtops the obstruction and overflows it with the balance velocity if there be any, while if there be no balance velocity it does not overflow.

(f) If the flow of water is completely obstructed by a very high obstruction, the springs from which the water was flowing get choked and diverted while new springs start from the earth now submerged, thus the tank thus formed gets ultimately dead and useless.

(g) The flow of any water should never be completely stopped; water should always be kept flowing, as frequently as possible.

(h) When water is stopped any silt flowing in it is stopped and deposited. Some measure must therefore be taken to get this silt washed away. For this purpose revolving gates अरर that revolve on a horizontal axis should be used.

(i) The shape of the dam should be like the mouth of a fish and its top should be like the back of a tortoise and the canals taking off from the tank should be like the legs of a tortoise while its head and neck should represent the overflowing water.

(2). For the कृप शास्त्र the following information is to be collected for each locality.

(1). The rainfall at various places should be measured as regards its season, direction of fall, intensity, and

duration. At present rainfalls are measured but its intensity and duration is not measured and hence calculations based on these measurements fail.

(2). The flow of water underground and the effect of rain fall on it should be marked.

(3). The changes in the flow of water underground with the causes of fluctuations if any should be ascertained.

(4). The causes which lead to the changes in season, intensity and duration of rainfall ought to be investigated with a view to be able to control them.

(5). The quantity of water absorbed in each kind of earth, the period for which it remains absorbed, the loss of this water with its causes and the effects of the soil on water and of water on the soil ought to be found out.

(6). The effect of the changes of wind on water flow and of water flow on wind should be ascertained.

(7) What relation the growth of jungle and its destruction has on water, wind and rainfall. The removal of trees from the tops of hills and the planting of trees along the roads in the plains has changed currents of underground water : is this corroborated by experience ?

(8) Maps showing the currents of underground water composed from the wells and their springs in the locality should be prepared.

Just as we prepare the geological maps showing the layers of minerals

and rocks and from these prepare the schemes of mining operations, in the same way maps showing the level of water and its underground currents and the water-bearing strata should be prepared for use with **कृषि शास्त्र** for enabling men to have their wells and irrigation operations systematised. Particularly it should be seen that the effects of our improvements on the surface-flows should not be disastrous on underground water currents but they should if possible encourage underground water current for well-supplies.

(3) For **नौका शास्त्र** we have got marine plans showing depths of water, dangerous rocks, light-houses and shoals so as to guide mariners in their travels. Similar maps ought to be prepared of all tidal creeks and navigable rivers.

(4) The sage **भृगु** has noted the following results of his observations for guidance in **तडाग शास्त्र** or construction of tanks.

(1) The surface of stagnant water is always in one plane equidistant from the earth's center whatever be its shape or size.

(2) The pressure of water increases as we go below its surface and this can be represented by a triangle and calculated also accordingly.

(3) The temperature of deeper water is more constant than near the surface.

(4) When water falls over an obstruction the shape of the falling water is a parabola **अर्काश्च**.

(5) As water drops down from a wall with a sudden velocity, this velocity is produced by a proportional fall of the surface from the steady water. The water is drawn to the fall in the shape of an inclined plane and rushes off the end.

(6) When water rotates like a whirl, its surface is like an inverted parabola.

(7) The whirl of water has a centrifugal force and velocity and this velocity is due to the fall of the point below the steady surface.

The velocity or fall can each be calculated if the other is known.

तन्त्रः

The velocity of flowing water itself is its तन्त्र and this can be used for floating down things. Timber &c., is thus floated down rivers to its destination. Fish that float in water are hardly ever used like beasts but the shapes of boats are constructed after the pattern of the body of a fish. In Indian mythology there is the legend of a king having his boat drawn by a fish but nobody has again done so though there are instances of rings having been put in the noses of fishes. Many Indian holy places have such fish with the Nose-ring in their noses seen today.

यन्त्रः

The principal mechanical appliance of पृथ्वी is lever रेखा and so the principal mechanical appliance of जल is चक्र. The idea of a चक्र has its beginning from a bent lever भग्नरेखा moving round its

pivot or आधार. We see this in the turnstyle or capstain bar. This contrivance is to be seen on all Indian wells either for drawing water by hand or as in the Persian wheel by feet.

The lever is also used for lifting water and is called तुलायंत्र. In this a vertical post has a horizontal beam pivoted on its top. At one end of the beam is a stone tied on it firmly and at the other a bamboo is fixed vertically. At the end of this bamboo is a basket which brings up the water. The bamboo is pressed down into the water and the weight of the stone lifts up the water. It is evident that the stone is fixed on the shorter arm and the bamboo on the longer one so as to afford advantage in the power used by the hand.

In the जलयंत्र or Persian wheel the pots lifting the water are tied to two ropes in the shape of a garland and the friction of the wheel with the rope turns the garland and brings up the pots full of water. In this the wheel is turned by a man with his feet as well as hands. In the ordinary water wheel which is like a capstain the pot bringing the water is tied to a rope which is wound round the wheel. The spokes are turned by the hand and the winding up of the rope brings up the pot full of water. In these wheels the सावित्री power and सूचि work are continuously working at an angle with each other which is the angle of the bent lever of which the wheel is formed.

In the ordinary wheel the power सावित्री and work सूचि are continuously

changing their points of application or attachment to the wheel but there is a sort of wheel called eccentric विषमचक्र in which one of these is fixed to a point in the wheel. This is well seen in the पेषणीयंत्र the Grinding wheel. By this means the circular motion of the wheel is changed into a to and fro motion and vice versa. This wheel can be used in कक्षयंत्र Sawing wheel for sawing logs of wood; the circular motion of the wheel drawing the saw to and fro. In modern Steam and Motor engines these eccentrics are very widely used for changing this to and fro motion of the piston the rod into the circular motion of the fly wheel.

Up to now we have considered single wheels but two or more wheels can be fixed on one axle and thus produce different velocities and forces by the application of a common force. Similarly two or more wheels of different diameters may be joined by straps, belts, or strings. A collection of such wheels is called चक्रसंघात. In a चक्रसंघात some wheels may be fixed अचल and some may be movable चल. Such चक्रसंघात are called कपिन् from which the vernacular name कट्टो is derived as also कपीतन a Bunyan tree having ropes hung from the top as if from a block of pulleys viz. the adventitious ropes. These are very widely used in modern mills for transmitting velocity to different parts of the work.

The power that can be obtained from water is from two sources viz., (1) its weight and (2) the force of

its velocity. The weight of water is used in two ways viz., by putting a thing in water and by throwing water on a thing.

(a) We have already seen that if we put a thing in water, the latter uplifts it. This power is used in floating things such as boats and in finding out adulterations in metals, woods &c. We also use this power in removing chaff from corn, mud from metals, and in differentiating grains of different size and weight from one an other.

(b) We have seen that by means of the Persian wheel we can lift up water. If however we fix the pots to the wheel and throw water into them it will make the pots heavy and thus turn the wheel round and round. Water flowing along wheels is thus used for grinding corn. This also is जल यन्त्र.

The velocity of water is also used in two ways viz., by going with it and by borrowing velocity from it.

(a) We have seen that by floating things along flowing water we can carry them with ease.

(b) If we make water push the planks or blades on a wheel as it passes on, the wheel can go round and round as the water passes. This is called जलचक्र. The converse of this is also true ; that is if we fix the oars of a boat on a wheel and turn it, the wheel would push the water and the boat would move. This boat is called

चक्र नौका and was frequently used on the Ganges. Even today the Maharaja of Benares has such boats on the Ganges at Benares. On a boat four

such wheels were generally used in old days.

धारायन्त्र is the ordinary syringe. This was another machine used with water. In this the pressure on water was removed in one place and the drawn up water was thrown out. The construction of this was suggested by the trunk

शुद्धा of an elephant and hence it is called **शुद्धायन्त्र** also. The word **धारायन्त्र** is sometimes used for a syphon which is worked on the same principle and was used in draining off pools of water into lower valleys.

The modern hydraulic presses are only converse of this as instead of removing the pressure on a portion of water surface they add it on one portion. This was not known in ancient India.

The reaction of water on revolving things was used in **मन्थनयन्त्र** or **भ्रम यन्त्र**. This was a fountain with a revolving head, and as the water escaped from this head, it turned round and round and cooled the air. The modern turbine producing electrical current is a **मन्थनयन्त्र** on a large scale,

In **नौकाशास्त्र** we read of **भ्रम नौका** and I suspect the **भ्रम** used is a turbine and the reaction of the **भ्रम यन्त्र** on water moves the boat. Details of the construction of these are not available beyond only a mention that on a boat four such **भ्रमयन्त्र** were used. I think **भ्रमयन्त्र** does not mean screw-propeller but only turbines like the churn used for churning curds, &c.

Water can be lifted up by means of the screw invented by Archimedes. In the inside of a cask planks are fixed like the thread of a screw and the cask is fixed on a slanting axle. When this axle is turned the water rises up and flows out at the other end of the cask so long as one end is immersed in water.

मन्त्र

The modern Pumps, Hydraulic presses, Hydraulic rams are all instances of **मन्त्र** power of water.

In ancient Indian Engineering when water was dammed and conveyed in open channels or closed conduits, it was considered the **बशीकरण मन्त्र** controlling of water. This controlled water was used for Irrigation, Water Supply or Power purposes as noted above,

Another use of water **मन्त्र** was in extracting salts by means of solutions. Various kinds of salts were extracted from the earth or ashes of plants in this way.

Crystallization of sugar etc. was another **मन्त्र**. The shapes of the crystals denoted the quality of the material. Thus flaked sugar candy was preferred to block crystals, and the tissue-shaped or thread-like **तंत्रमय नवसागर** Ammonium nitrate to the crystalline variety and so on. When dealing with salts the shape of the crystal is particularly specified by Indian Engineers.

मन्त्रित जल or Acids of various sorts were also used in destroying and burning enemies or demons. It is already noted that Sulphuric Acid was used with Potassium Cholate or nitrate as a blasting agent.

A PROPHET OF THE DAWN.

BY T. L. VASVANI.

I am not an Arya Samajist but I am a *bhakta* of Rishi Dayananda. He is not the monopoly of a samaj or society. He belongs to an International Samaj of the Spirit. Today you meet under the flag his hands held high—the flag of Om. The Day is coming when the West will pay homage to the flag.

In his hands a heavy club, in his heart a vision of the flame.—Dayananda went from place to place to proclaim to his people:—Arise; Awake; The Dawn is coming; Dayanand was a prophet of the Dawn.

He created a new pride in India. When he went upon his mission, the people were immersed in *tamas*—in inertia, in mental and spiritual darkness. The masses were engulfed in superstition. The “educated” turned westward for light and strength. Dayanand raised the cry:—*Back to yourselves!* With the vision of a *Rishi*, he saw the greatness of Aryan civilization and culture. His was a voice almost in wilderness. We know now that he spoke wisely, for he saw truly. As the years have passed, we have learnt to see more and more of the shut-in splendours of Aryan ideals and Aryan achievements. Not without reason did pilgrims come from foreign lands to India in search of her Scriptures and Sadhus. Not without reason did Aristotle say to Alexander that the

gift he wanted from India was the gift of a Yogi. Not without reason did Timocles say he had visited Italy, France and Africa but met not one man who was either wise or happy but that when he came to India he met on the banks of the Ganges a silent man who was wise and happy and who expressed the highest philosophy of life in a few beautiful words:—*God alone is steadfast.* We know now that ancient Aryans were great not alone on the plane of thought and religion and art but also in the realm of action. And materials exist for volumes on Aryan influence on Egypt, Greece, Babylonia, Java. It was a refined civilization the Aryans had evolved. Modern age is civilised—over-civilised, but—as Kant saw over a century ago—is not moralised enough. Modern civilization is like the structure of Ibsen's *Master Builder* who built towers rising higher and higher but in the end making the architect himself dizzy and so carrying him high only to perish just when he thought he stood on a pinnacle of fame. Modern civilization is perishing of its pride (*ahankar*) and *bhoga*. In Wisdom is the cure of the world's malady.

And repositories of wisdom are the Vedas. To them did Dayanand turn for light to take the world out of the deepening darkness. The Vedas—not a “bab-

Brief notes of address at the Arya Samaj Anniversary, Karachi.

ling of an infant people," as Max Muller called them once. But a Revelation to the Race; Guard them, said Dayanand. And rightly. Science is built on laws of nature. Psychology is built on laws of mind. Dharma or religion must, also, be built on laws. And the singers of the Vedas have been named *Rishis* i.e. seers because they saw into some of the mute laws of the Spirit and of Civilization. These laws are hinted at in the Vedas. Let me, in passing, refer to a few of them.

(a) *Law of Brahmacharya or simplicity*:—The Vedas repeatedly urge that in simple life is our salvation. Does not history show that racial decay is due to luxury? Prof. Herman Lunborg, head of the Race Biological Institute at Upsala, Sweden has recently pointed out that neither wealth nor luxury is good for civilization. Modern civilization is smitten with passion for *bhoga*. Hence its decadence. Back to the simple life,—is the Vedas' call to the Nations.

(b) *Law of Surya Shakti*. This, too, is hinted at in several places in the Vedas. There is a connection of Vedic rituals with the daily ritual of the sun. We are fortunate in this country to have the bright sun upon us. In London the climate changed so much, I was tempted to ask to them here;—“Have you a climate at all?” For days and days together I did not see the sun. Clouds, Rain. But I panted for a sight of the sun. At Marseilles! I saw the sunrise. What a glorious sight! And I came back to India with a deeper love for the sun. Our skin is sun-tanned. Thank God for it! The sun's rays have a

healing quality. The sun is a medical agent. It destroys bacilli. Education authorities in Europe have recently drawn attention to the value of sunlight baths. Not without reason did the Aryans have open air education in ancient India. Breathing exercises in the fresh air do good to the body and the mind. Vedic Aryans did not stuff themselves with clothes like the moderns; but more light clothes and exposed their bodies to the health-giving violet and ultra-violet rays of the sun. By taking in the Surya Shakti and being in tune with nature, the Aryans built up refined bodies and spiritual minds.

(c) *Law of Prayer* :—The Vedas have been called a collection of Prayers. These prayers may, I think be classified. There are in the Vedas :—

(1) *Cosmic Prayers*—Prayers for rain, prayers for proper regulation of nature's elements and operations. Then there are (2) *Racial Prayers*—specific prayers for the health, happiness and progress of the Aryan race. How many of us who ask for *Swaaraj* Pray to God to bless India in the Struggle? Then there are (3) *Atmic Prayers*—prayers for the soul's intimate communion with the Divine Spirit. I believe in Prayer. I believe that true prayer is a creative force. And true prayer is like the ancient Aryan's prayer, full of child-like faith. If we moderns could but be as children and pray in faith to the All-father!

(d) *Law of Yajna or Sacrifice*. The Vedas are full of beautiful Mantras bearing upon Yajna or sacrifice. What could not Indians achieve if they paid homage to this great Law of

Sacrifice. *Sacrifice of Caste*;--therefore no untouchability. The only low birth is ignorance ; the only *Sudras* are the illiterate. *Sacrifice of narrow nation-cult* ;--therefore no hate or strife in the sacred name of Freedom. *Sacrifice of communalism*, therefore no Hindu-Muslim conflict. The Hindu and the Muslim both belong to the one Mother, India. For India must be free not that she may dominate others but that she may serve Human-

nity. *Bharat Hamara*. "India is ours". I have heard this sung with great fervour and patriotic faith. But there is yet a higher strain—*Barat Tera*—India is Thine, O Lord!" Sing that in your heart. Make a sacrifice even of India at the feet of the Lord. Pour yourselves into the great *yajna* of the Spirit, as did Rishi Dayananda. And out of the ashes of Sacrifice will rise a New India, a New Civilization, a New Humanity.

FROM BERGEN TO CHRISTIANIA.

(MR. MANMOHAN RAI H. DESAI.)

At 8-15 A. M. we started and Bergen and its environs began to recede out of our ken. The Bergen-Christiania Railway managed by the State is said to be one of the best scenic railways of the world. It is also said to be a marvel of engineering skill. Upto Christiania it commands, in its own way, typically glorious scenery, certainly among the best, in Europe. The Railway must have cost a fabulous sum to construct. It took fourteen years to complete, being 370 miles in length with 184 tunnels and 55 stations. It was a warm and sparkling day. The train was crowded and I was pervaded with an unpleasant feeling--why I can't say. As Bergen receded from us, both to our right and to our left began a series of splendid pictures of gleaming fjords and austere tho' significant fields, magnificent mountain ranges, beautiful valleys,

glistening water-falls often relieved by picturesque little hamlets, children-like basking under the sun-rays in the laps and at the feet of mountains or on the banks of the fjords or nestling themselves in the bosom of the valleys, with wooden houses noticeable alike for their modesty and their simplicity of design. Here and there, the sturdy mountaineer could be seen gliding on the glossy waters of delightful fjords in a small canoe or regaling himself in search of the salmon either for recreation, sport or food. Vaksdale was the first station, we halted at, and approached Dale thro' cleaved mountains and beautiful streamlets which were a delight to the eyes and poetry to the soul. We approached the modest yet graceful Dale for a short halt to soon behold a fine picturesque effect of the loop round the river lying at Evanger, round whose

banks in a semi-curve our train glided vouchsafing us a glorious view of the river, enclosed in the bosom of majestic and wooded mountains with the unpretentious quiet and secluded village of Evanger stretching in wooden houses at its feet. At almost every bend of the line, the scene changed. Bold head lands ran out in the calm waters of the fjords, often dotted with rocky islets into which sometimes silvery cascades descended, sometimes glinting roaring rivers dashed. Occasionally a few patches of arable land were seen. From Evanger could be obtained a beautiful view of the mountain (Mykle-thveit-vete) 3470 feet high.

We now arrive at Voss where the panting train rests for a while from its labour of a journey thro' fjords and fields, chasms and ravines, beautiful and grand for us to see, irksome for it to ascend and traverse. From Bulken on to Voss, we noticed patches of snow scattered about on the tops and sides of hills, but from Voss, the landscape changed to one of more dour and grave aspect than the one we had emerged from. We had two huge engines to draw our train and with a speed that was slow and dull, they laboured up the ascent of some hill, and we soon arrived at Ygre, through a landscape conspicuous for deep ravines, low valleys, yawning chasms, sturdy rocks clothed with vegetation and passed the stations of Grove, Reime, Opsel and Myrdal. Now began our journey over the Hardanger Range to Pinse (4000 ft), considered to be the finest ski-ing resort in the world. Here and there we saw low abysses illumined with glistening water-falls.

"The view from the train as it emer-

ges from the innumerable snow-sheds constructed for the protection of the track in winter is of the wildest and the most rugged character and as Pinse is approached, there is a fine view of the Hardanger Glacier obtained." And a splendid vision of the Glacier with its eternal snows were obtained. It was a bright mid-noon sun that was now sporting with the snow. Immaculate white of the glacial ranges was now beautifully set off by the sky with its blue shadows of colour reflection on account of the sun-rays. Like a lovely chrystal sparkled the glacier. A profound silence or repose as of death pervaded its regions. Nature seemed wrapped in mysterious or rather mystic symbols significant of the purpose of creation. I felt that there was a deeper significance in life than one of mere existence. Evidently the glacier seemed shining to admonish me, of what I could not catch however much I tried.

The railway here between Myrdal, Pinse and Hangastol lies on the great mountain waste at an elevation of from 2800 to 4000 ft. "All around there lies the land of glaciers covered with snow, broken often by black crags and huge boulders, covered at low-lying regions with pools and lakes of water. From Pinse the railway descends to Hangastol and passing Ustacoet, we came to Gjeils—a beautifully wooded resort on the lower slopes of the mountains. Now began the more soft and relaxed landscape, very pleasant after the stern and awe-inspiring solitude of the glaciers. Now we passed thro' the mellifluous Eastern coast scenery with chains of hills grown with luxuriant vegetation, nice villages having quite

an affable look, beautiful green lawns, and splendid firs, oaks and pine forests. Porpse, Nosbyen, Gulwick we passed. Nice rivers dashed along guin crags or broke thro' huge stones raging against them with thunder and storm. Pine forests were plenty and from the dining car we saw a beautiful lake of placid waters at the feet of a stern rock on whose breast human beings enjoyed

rowing, angling etc., according to their taste. But now with the shadows of twilight as the night began to darken, the lines became invisible and blurred and I too napped. A lovely moon hung in the firmament with infinite sadness. It was indeed a lovely and enchanting scenery in this land of the Midnight Sun, the land of the Sagas, the land of loveliness.

THE VEDIC IDEA OF THE GOAL OF LIFE.

(By Pt. DHARMA DEVA SIDDHANTALANKAR.)

"What is the sumnum bonum of life?" is the question with which the science of Ethics is mainly concerned. No religious scripture has left the question entirely untouched. According to the atheists like Charvak and Brihaspati sensual enjoyment is the only goal of life. "Eat, drink and be merry" is their motto. According to the Buddhists, Nirvana or the annihilation of self is the end of life. The Advaitees or the pantheists hold that to be united with or to merge in Brahman is the ultimate end of human life. Here I do not propose to discuss the matter at length. I only propose to give to the readers a clear idea of the goal of life according to the Vedas. I hope that my readers will try to grasp the Vedic ideas thoroughly and then on a comparative study will realise the sublimity of the Vedic teachings.

There can be no gainsaying the fact that the attainment of emancipation or

Moksha is the final end of every human soul. The whole Vedic literature is full of sincere prayers for the attainment of deliverance from pain and bondage. But what is the nature of that deliverance which is so often sought after by all the seers, sages, and saints? Is to be literally one with Brahman or to merge one's self in the Universal Self the meaning of Moksha? In other words, to extinguish the separate entity of the human soul--is this the meaning of Mukti? I think the answer to such questions can not be given in the positive. I can say it positively that the Vedas do not give tone to the neo-Vedantic idea of being literally one with God in emancipation. The Vedic conception of Mukti is that state of perpetual happiness in which a pure spirit enjoys the bliss of Brahman and is free from the bonds or slavery of matter. Let us take into consideration the following few Mantras from the Rig Veda.

यत्र ज्योतिरजस्त् यस्मिंलोके स्वर्हितम् ।
तस्मिन् मां धेहि पत्रमानामृते लोके अक्षित
इन्द्रायेन्दो परिस्त्र ॥

The sum and substance of this Mantra is--O God, the purifier of our spirits, lead us to that perpetual immortal world or state where there is always divine light and where happiness reigns day and night. Shower on our heads the eternal bliss. It is in sincere prayers like this, that we can find the idea of the goal of life according to the Vedas. The attainment of divine bliss and divine vision have been chiefly mentioned in the above quoted verse. The seers never run after the transitory objects of the world. They do not condemn riches but their aim in life is never to amass wealth. They take greater care of the spiritual wealth which consists in getting true abiding happiness and peace. To attain immortality is in their eyes the greatest achievement. Without the grace of the Almighty the attainment of true and abiding happiness is impossible, therefore regarding God as their Father, Mother and Friend they pray to Him for fulfilling their heartfelt desire. In the same Sukta we find another verse which is equally remarkable. It runs as follows :--

यत्रानन्दाश्च मोदाश्च मुदः प्रमुद आसते ।
कामस्य यत्रासाः कामास्त्र मामस्तं कृधीन्द्रः ।
येन्दो परिस्त्र ॥

It means--O my Lord, the giver of all the true delight ! Lead me to that state of immortality where there is happiness and perpetual happiness. Where there is not the least contact of misery. Where all the desires of a

soul are fulfilled. Shower on me eternal bliss. What a noble prayer is this ! The attainment of happiness is the end of life no doubt, but not the fleeting happiness that is got by riches or honour. Riches and honour are not looked down upon by the Vedas but they alone can never give us true happiness. The true and abiding happiness comes always from within, never from without. The abiding peace is the outcome of the realisation of Brahman within the soul. It is this divine peace that we should all aim at. It is this divine eternal happiness that should be sought after by all of us. This then is the goal of life, viz the attainment of divine power, divine peace and the divine happiness. What have we to do for the attainment of all this ?

We have to devote ourselves heart and soul to the contemplation of that All-powerful God who alone is the giver of all true happiness. We all are His children and if we sincerely pray to him for the attainment of His divine vision, He will certainly grant it. Let us then pray to our Father in the following manner : -

इन्द्र करु न आभर विना पुत्रेभ्यो यथा ।
शिक्षाणो अस्मिन् पुरुहृत यामनि जीवा ज्योति
रशीमहि ॥

Atharwa 20-79-1.

O God Almighty ! Fulfil all our desires as a father fulfils the desires of his children. Give us true knowledge so that we may enjoy divine light. The Divine vision or light prayed for in verses like this stands for the spiritual vision which enables us to see the hand of God everywhere or to realise the presence of God in all the things

and beings of the world. It is only after getting this realisation that we may attain abiding peace and happiness and never before that. The Holy Communion with God lifts up the veil of illusion from our eyes and then only we are in a position to feel His Omnipresence. But have we to renounce all our worldly duties in order to reach that summum bonum of life? No, it is not only for the Sanyasis to realise Brahman, though undoubtedly they are in the best position to do so. The realisation of Brahman is open to all—to Brahma-charis, house-holders, forest-dwellers as well as Sanyasis. Here is a verse from the Rigveda which clearly says that the house-holders also can certainly receive the divine vision if only they get rid of all sins and try to develop their powers harmoniously.

विश्वाहा त्वा सुप्रसः सुक्ष्मसः प्रजावन्तो
अनमीवा अनागनः । उद्यन्तं त्वा मित्रमहो दिवे
दिवे ज्योग जीवाः प्रतिपश्येम सूर्यम् ॥

Rig. 10-37-7.

It means, Oh Divine Sun-God the dispeller of all spiritual darkness ! Let us always receive Light, being possessed of noble minds, perfect sight, endowed with noble offsprings perfectly free from diseases and sins. Truly God is the dispeller of all darkness that prevents us from seeing His hand everywhere. Truly it is mainly by the grace of God that a devotee gets the divine vision and then becomes free from the bondage of material things. He is no longer under the thumb of matter, but feels his distinct spiritual existence. But even that realisation of the highest

order won't do. According to the Vedic idea mere knowledge or mere-devotion can never lead us to our destination. Knowledge and actions must go together. Therefore the Yajnas have been regarded as an indispensable factor in the attainment of Mukti. The true worship of God Himself demands that disinterested actions must be performed by every one who desires to enjoy the bliss of Brahman. To do good to God's children is certainly the best way of pleasing God. It is for that reason that it has been said in all the Four Vedas.

यज्ञेन यज्ञमय जन्त देवास्तानिधर्माणि प्रथमा-
न्यासन् ॥

Rig. 10, 90, 16 Yaj. 31, 16.

i. e., wise men worshipped God through Yajna, that is—Honour to superiors, association with equals and charity to the deserving. This threefold duty constitutes Yajna which is one of the primary Dharmas of all men. Whatever is done with a disinterested heart only keeping the good of the society at large in view may be called a Yajna according to the Vedic idea. The Upanishads which propound many of the Vedic ideas tell us plainly that the whole life of a man should be regarded as a sacrifice. “पुरुषो वाव यज्ञः” that is what we read in the Chhandogya Upanishad. Unless the whole life of a man becomes as a sort of sacrifice for the welfare of others, one can in no way fulfil the goal of human life. Let us then make up our minds to acquire divine power, divine peace and divine bliss through meditation and disinterested acts of service. Let us be in right earnest to realise the

nal truth mentioned in the Vedas regarding the goal of life and then leave no stone unturned to propagate the sublimest Vedic ideas. May God give us power to realise these things for

ourselves, so that being endowed with the divine spiritual vision, we may be in a better position to propagate the eternal truths taught by Him through the Vedas.

Intellectual Freedom and the Arya Samaj.

(BY PT. RALA RAM M. A.,)

Thought is more powerful than dynamite ; it is stronger than steam. It is more terrible than an earthquake. Thought is the biggest and mightiest revolution ary ; the worst destroyer and the best builder. Autocratic governments are not afraid of individuals but of thought that runs counter to them. A man is small or great, base or holy, good or bad according to his thoughts. A man is a bundle of thoughts. In society he is valued according to the worth of his thought. Thought is the mother of action. From it germinate all the institutions and all the movements. The Protestant Reformation was at first a mere subtle invisible Thought pregnant with potentialities mightier than those of an earthquake. The French Revolution was a thought at first. Rousseau and Voltaire did not bring about the revolution ; they were too feeble for it ; it were their mighty thoughts—of which they were the humble instruments of propagation—that upset thrones, shook kingdoms to their very foundations and sent kings abegging. The love and the feeling of brotherhood born of community of thought is stronger than any that comes of blood-relationship. Difference of thought sets son against father, brother against brother. So thought is a mighty factor to be reckoned with in our dealings with humanity, it is the first and the foremost item to be considered in our

estimate of individuals, movements and institutions.

Freedom or slavery is also a matter of thought. A man free in his thoughts is free, whatever the form of government may be. Mahatma Gandhi was right when he said that Swarajya or no Swarajya, he was already a free man, because his thoughts were free. A slave is a slave only so long as he *thinks* he is a slave, so long as he has got a slavish mentality. A free mentality and he is free. When a man has achieved freedom in the domain of thought, he is free for ever. Put him in chains but he is free. The free soul discards these irons. For him then “stone walls do not a prison make, nor iron bars a cage.” But a man who has got a slavish mentality, who must think according as somebody else thinks, who feels bound to believe what this or that man said, who thinks it his duty to suppress or start a malignant campaign against certain thoughts that disturb his irrespective of their intrinsic merit, who will not hear of comparing the two opposed sets of thoughts, is the true slave, although the system of government under which he lives may be the most democratic possible. Freedom like virtue is first and last a thing of the mind ; so is slavery.

As with individuals, so with nations. A nation is an aggregate of individuals. If a large majority of its members possess intellectual freedom, the nation can not be kept under subjection by any power ; nay all the states of the world together can not reduce it to the status of a subject nation. When a nation or the major portion of it have a slavish mentality, sooner or later it is sure to fall a prey to foreign rule. The history of India from 500 A. D. to 1850 A. D. affords a wonderful proof of the veracity of the above statement.

The degradation of the Hindu Society is said to date from Mahabharat. But the decline in every sphere of human activity becomes very rapid and quite manifest about the beginning of the sixth century A. D. Only here and there we see glimpses, transitory and fast-fading, of the pristine glory of the Aryas. These glimpses are very few and very far between. They are the flicker of the dying flame, the last gasps of expiring greatness. India or say the Hindu Society is fast preparing to assume the role of a subject nation, it seems rushing fast to put on the shackles of slavery. Its downfall is complete about the time of Mahmud's invasion of India. The reason of this downhill descent is not far to seek. If we examine the trend of thought in the Hindu Society and Hindu literature, we at once come to know the real cause of it.

During these centuries Hindu mind and consequently Hindu literature—for literature is only a reflexion of life—had been losing freedom of thought. The Hindu brain was becoming slavish. Literature, the reservoir of thought, was becoming putrid. To a Hindu, religion is an all-embracing force. There is no department of his life but religion controls it. There is no action but religion guides and determines it. There is no detail of life but religion must regulate it. Religion is to a Hindu as the breath of his nostrils. Consequently Sanskrit literature is first and last religious literature. Other elements of literature are present

in it but religion (Dharma) dominates all others. So when religion, deviating from the original pure channels, began to foster a slavish mentality, there could be no hope for the Hindu. The Hindu came to lose the faculty of thinking for himself; the critical faculty altogether disappeared. A typical Hindu believes implicitly in destiny ; he believes that he has no hand in the making of himself, that he is a toy in the hands of fortune ; circumstances mould him, while he has no power to fashion his own circumstances. He firmly believes that he can in no way change the existing state of affairs ; if he is suffering at the hands of others, it is ordained that he should suffer.

He is innocent and peace-loving and rascals trouble and torment him ; well (he will tell you) in Kaliyuga it is bound to be so. He can not conceive of anyhow remedying the defects in the existing state of affairs, of bettering his position in the world. Almost every Hindu believed and argued thus in the past. His (so called) religion taught it. Thus the Hindu became a slave to circumstances and environments. He came to have a mentality exactly calculated to produce slaves. Without such a mentality, how could he design and scheme, how could he adjust himself to changed circumstances and how be up and doing at the time of a national calamity ? He lost all originality of thought (so characteristic of his ancestors of remote antiquity). In History he has since the beginning of the 11th century again and again shown his incapacity for combination and co-operation. Men with such a slavish mentality are truly incapable of it. This incapacity is the necessary consequence of such a slavish theory of life. Such a theory of life could not but be productive of superstition. In the Hindu mind the boundary between the imaginary and the real became blurred and was at last quite obliterated. He became incapable of practical action. Therefore the foreign invaders soon re-

duced the Hindus to subjection, because their brains had already been enthralled, their minds were already in a prison. Intellect enslaved, there was nothing else worth conquering. They were already slaves, only a master was wanting.

This state of affairs continued right up to the middle of the 19th century. Whoever invaded India remained the master of the field. Then came a mighty Rishi with the torch of Light and Reason in his hand. He applied the axe of rational criticism to the roots of the Upas tree of pessimism, superstition, fatalism and ignorance. In teaching with all his might that man is the architect of his fate and the creator of his environments and that he can control and shape to his end all his circumstances he rendered the greatest service to the Hindu Society. He taught that Activity (**पुरुषार्थ**) and not Fate is the dominant factor in life. He showed the Hindu his better self and thus induced him to bestir himself. He introduced Reason in religion and thus dealt a fatal blow to superstition. Like the true slave the Hindu had no confidence in his own intellect. He thought it his duty to follow whatever custom happened to be in vogue at the time and to accept as gospel truth whatever was written in Sanskrit in any book. Dayanand taught him that he must accept only what his own reason told him to be true, that he had the power, the right, the capacity to modify or give up what was against nature, whatever did not suit his conditions, whatever violated the eternal moral laws. He could not have rendered a higher service to the Hindu society than infusing a spirit of self-confidence in it. He liberated the Hindu intellect from the thraldom of scholastic absurdities.

The Arya Samaj has been persistently teaching all these healthy doctrines. It has by its teachings, to a large extent, shattered to pieces the original slavish mentality of the Hindu; the necessary consequence of which has been the rise

of a spirit of freedom. Intellectual freedom always makes for progress in all directions and in fighting for freedom of thought it has done a very splendid service to humanity and the cause of progress.

No amount of education on western lines could have accomplished this object. It could not have dispelled the clouds of superstition; because almost every Hind distrusted, (rightly no doubt), in the past and now distrusts this education and the culture on which it is based. This education could not have remedied the defects except by dehinduisng the Hindus, to say nothing of the other defects that, being inherent in it, the Hindus would have imbibed. The culture on which the western system of education is based is quite different from and in many ways diametrically opposed to ours. It looks down upon our culture even as seen in its purity in our Shastras. The system of education as started by our foreign rulers was instinct with this feeling of its (the western culture's) absolute superiority to our culture and therefore it proposed to mend matters by ending our culture and building upon its ruins a Christian or semi-Christian civilisation. To have accepted this system of education would have been suicidal. The Hindu Society, therefore, acted very wisely in rejecting this system and repudiating the claims of absolute superiority put forward by Western culture. It ridiculed those purely dyed in colours of Western culture and thus saved the culture it cherished. Its children might receive this education for securing government service but its principles were not to enter into their social and religious life. The teaching of history was especially so managed in schools that it should instil into the students' mind a sense of the inferiority of their nation and culture. The Hindus, therefore, looked at it with an eye of extreme suspicion. Consequently this education had no influence on his life and could not modify it for better.

The Arya Samaj brought with it the rationalism of Europe without scepticism. It claimed to be the representative of the real ancient Hindu civilisation. The conservation of the Hindu prompted him to oppose its teachings at first. But how could he have withstood the appeal of his own Shastras to his better self? By and by the rational and pure teachings of the Arya Samaj penetrated to the most orthodox bosom and have changed his beliefs for better in many respects. The Hindu is now shaking off his slavish mentality. The credit,

eighty per cent of it, of bringing about this healthy change belongs to the Arya Samaj, people have not as yet adequately realised the great part the Arya Samaj has played in dispelling the clouds of ignorance and superstition, in restoring the self-respect of the Hindu and in destroying his slavish mentality. Although the numerical strength of the Arya Samaj is not great, yet the currents of its powerful rational thought have been running strong everywhere and transforming the Hindu society for better.

The Hindu Maha Sabha and the Congress Leaders.

(By MR. S. P. KULYAR.)

What a poor attendance of Hindu leaders there was in the last session of the Maha Sabha!

With the exception of Pandit Malviya and Swami Shraddhanand all other Hindu leaders are Indians first, Indians last and—perhaps Hindus.....

..... They live for the Congress and they will die for the Congress—beyond the Congress there is nothing worthy of their attention. We may take it that Hinduism does not appeal to them.

It is not difficult to understand their mentality or to account for it; one word will explain all. They have it not in their blood, in their constitution, in their organism,—they are quite innocent of all religious zeal—the zeal of Mohammad—the zeal of Christ—the zeal of Buddha—that would—not mar your life like the fanaticism of a Mullah—but enoble

your life—raise it—purify it—and lead it to the service of others. For centuries long we have had no zeal and we cannot have it now for the wishing. It will demand a supreme effort—a strong will to produce it and than a careful nursing before it can grow into a trait of our character. Zeal! But zeal is a word of bad odour with some people. It so often passes for fanaticism. Perhaps some of your readers would turn upon me and say—have we not had enough of this zeal? Are not these riots and outrages the outcome of this very zeal which I am preaching? Let us make our meaning clear.

Some years ago I mentioned to a friend of mine that I was at that moment trying to obtain a license for keeping a gun. He said in a very grave tone that he did not like the idea. On my pressing for an explanation he said he knew a man who had recently lost

his only son through keeping a gun. The boy had been reprimanded by the father and in a huff took the gun and shot himself. I thanked him for the hint and said that it was easy to give up the desire for the gun ; but how could any one keep boys from getting at knives, hatchets, axes and swords ? The wells too could be filled up, but the great Ganges and the Jumna--how could they be swept away to make it impossible for the boys to harm themselves ? When a man or a boy has determined to throw away his life he will not have to go long in search of an instrument. I too knew a poor ticket collector whose son—a mere child of 12 or so—threw himself before a running train and was instantly done to death and for what ? For a mere rebuke to mind his school lessons.

The truth is we confuse matters. We blame the gun when we ought to blame ourselves. Seldom will it be found that a suicide or a murder or any such serious act is the result of a sudden impulse. It is always the last act, the consummation of many such uncontrolled impulses that the man has been harbouring in his breast—unknown, unseen, uncared for, unguided. It is guidance that is needed. We should study psychology more and to better purposes. Weapons—these ought to give us education ! Till then it had not occurred to me how much good they can do to us. They can give us firmer nerves and a better control and a greater mastery over ourselves. With guns and swords in their hands our boys must learn to live and let live.

So it is not zeal that is at fault. It is want of guidance. The root of the

matter lies there. We do not take sufficient pains to guide the energy of the people into right or safe channels. These riots are due to a remissness on the part of those who ought to have guided them aright—and also a remissness on the part of those whose duty it was to keep an eye over their activities. It cannot be the work of the rowdies alone. There must have been something more than the rowdy element to make an outrage of such dimensions possible.

A people's zeal must find a vent—if not through the good people—then through the bad people. If the good keep aloof, the bad will come in and take their place. Plato has well expressed the same truth. *If the wise and good will not govern the bad, the bad will govern the good and the wise.* That is inevitable. Choose your place, ye wise men.

Similarly if the wise and good among the Hindus will keep aloof from religion, the fool, and the ignorant will take the lead—and the wise and the good will have to submit and follow to where Folly and Ignorance may lead them. The question for consideration therefore is this :—

Is the religious sentiment of the people to be left uncared for and unguided ? The leaders may be from top to toe, only politically minded; they may not be religiously minded; but the people—the vast majority of them—are decidedly religiously minded and it would not be safe, it would not be wise, of the leaders to leave them to their own guidance. The leaders will not then be true to their duty. They must lead the people wholly and in all spheres

not piecemeal now in this sphere, now in that. Man is a many-sided animal and if you care for him at all you must care for his whole being and not for this or that part of him. Politics cannot afford to neglect religion nor Religion afford to neglect politics. My contention is that if the leaders think that by neglecting or ignoring the religious instincts of the people they are suppressing and killing an undesirable trait or element in their character and are thus rendering a useful service to their country, I am afraid they are sadly mistaken. This religious instinct is an ineradicable instinct in man, you cannot extinguish it. None *has been* able to do it and none *will be* able to do it. You must accept this fact—that people will practise religion *according to their lights*—that they will worship God—and they will fight for their God if need be. Since you cannot abolish God or His worship or His followers—the only thing left to you as leaders is to guide and control them and lead them to the right path. As Leaders your duty does not end with Politics. You must guide them in all their actions and activities—in politics, in religion, in education, in their fights and quarrels, even in their amusements and recreations. We do not advocate an aggressive policy; we do not ask our leaders to take up their lances and in the name of religion charge the nearest wind-mill they come across: no, none of these things, but neither would we like to see them sit

unconcerned busying themselves with politics only — while our Religion and the things of our Religion go to the wall. Is their religion a thing in which they take no pride or of which they feel ashamed? If so, cast it away and at once. Get something nobler in its place. But we do not believe there is any one among us who entertains such a childish idea in his mind. We believe and sincerely believe that religion is dear to us all but it is dear to us only in our hearts. We do not make a parade of it. Even that is good but not altogether good. It is our plain duty to show to others—to impress upon them that we have our religion—that we live for it—that if necessary, we would die for it. So pure, so vital, so ennobling, so elevating should be our religion—an inspiration: a spiritual light, to lead us on to service of others. It should be something vital, something tingling, something burning within us, a living flame consuming all the evil tendencies of the mind and provoking all that is good and holy in us. No death-like inactivity—no indifference, no luke-warmness, that is pestilence. Learn from the brave Akalis, learn even for the moment, from our misguided brethren, the Mohamadens, learn to LIVE for your religion as well as for your country, and for your people. There in alone lies Hope for us as a People, as Men, as spiritual beings, and not in being political animals only.

THE SALVAGING OF CIVILISATION.

BY H. G. WELLS.

A REVIEW.

(MANMOHANRAI H. DESAI)

Wells has come to be recognised as a great thinker and a master-force in the English literature of to-day. Novelist and thinker, Wells has a way of thought and expression which is direct, forceful and profound, on account of which he is in our day a great favourite especially with us in India. William Morris wrote a splendid book to tell us what an ideal world may be like and even today in socialistic literature, this book of his called News From Nowhere holds a prominent place. Morris' is the statement of a vision which it would not be wrong if we say Wells tries to materialise into practice by suggesting a method of world-Government. Wells would have a World State governed by the World People where education and happiness of human beings would be the most sacred concerns and where wars and hates would be spurned as devils to be eradicated with a ruthless hand. Wells' World State is what Morris' Ideal Society or Tagore's United States of the World mean. The central idea of all these three is practically the same, but the value of Wells' work lies in his suggestion of possible practicable means to arrive at a state of life in the world so vividly imagined by Morris or eloquently preached by Tagore. The Salvaging of Civilisation

is a very able and thoughtful work of a great master. In this chaotic world of today, thinkers like Wells are a beacon-light for us to see rays of hope amidst profound darkness caused by wars and selfish political motives. In order to achieve his World State, Wells gives a great importance to propagandist work and for this, he would use the press, the books, the newspapers and above all he would recast our narrow system of education into one broad and comprehensive educational system which he would name the World-Education system. For this he would re-write the world-history and he has tried to suggest how it should be done by himself writing his famous work, the Outline of History. He would also synthetise the sciences and culture of the world into one World Culture on the basis of his project of World State. He would recast the Bible to be named the Bible of Civilisation consisting of

The Historical Books with maps and the like;

The Books of Conduct and wisdom;

The Anthologies of Poetry and Literature and finally

The Book of Forecasts, taking the place of the prophets and Revelations ; in short, the Magna Charta of the World-State which will serve as the pole star for the direction of the Ship which will, let us call it, be the Ship of World Civilisation. This is what Wells says.

" I would picture this revivified Bible to you as most carefully done and printed and made accessible to all, the basis of education in every school, the common platform of all discussion—just as in the old bible used to be. I would ask you to imagine it translated into every language, a common material of understanding throughout all the world. And furthermore, I imagine something else about this—quite unlike the old Bible—I imagine all of it periodically revised. The historical books would need to be revised and brought up-to-date, there would be new lights on health and conduct, there would be fresh addition to the anthologies and there would be Forecasts that would have to be struck out because, they were realised or because they were shown to be hopeless or undesirable, fresh Forecasts would be added to replace them. It would be a Bible moving forward and changing and gaining with human experience and human destiny."

Wells gives a lucid summary of his idea of the World State at the end of the book in the short space of a couple of pages. He has nothing but censure for the present educational system of the world and rightly so. Whatever may be the methods of education in other countries, it must be admitted that those in India are

simply disgusting. Our system has the great drawback of repressing personality and creating a sort of slavery in the child which becomes a great hamper to free and independent thinking. It is not education, we are having, but a mere rough-hewing of our brilliant parts into a most senseless medley of nonsense and rubbish. Wells will have "A dream not of *Individuals Educated*—we have thought too much of the individual educated *for* the individual—but of a *world educated* to a pitch of understanding and co-operation far beyond anything we know of today, for the sake of all mankind." And Wells has some really fine thoughts on the educational problems in a chapter called "The Schooling of the World."

He also gives a lucid picture of the life led by the World Citizen in the World State which will be evolved in the future, and which according to him must evolve if we do not want to perish and be totally eradicated as human kind out of existence, for unless we crystallise the social order into an idea of a World State whose Supreme God would be Peace and whose Arch-enemy, the War-Idea, we are bound with the almost anarchically chaotic state in which our world is today, to be effaced altogether from existence. He gives an eloquent picture in the book, of life under the World-State.

Wells' World-State will have no single individual human head. According to him "The linking reality of the World-State is much more likely to be not an individual but an idea—such an idea as that of a human common weal under the God of all

mankind." He sketches the organism of the World-State as follows:—

There will be a Supreme Court determining not International Law, but World Law. There will be a growing code of World Law.

There will be a World Currency.

There will be a ministry of Posts, Transport and communications generally.

There will be a ministry of Trade in staple products and for the Conservation and Development of the natural resources of the Earth.

There will be a ministry of World Health.

There will be a ministry, the most important ministry of all, watching and supplementing national educational work and taking up the care and stimulation of backward communities.

And instead of a War office and Naval and Military Departments, there will be a Peace ministry studying the belligerent possibilities of every new invention, watching for armed disturbances everywhere and having complete control of every armed force that remains in the world. All these world ministries will be working in co-operation with local authorities who will apply world-wide general principles to local conditions."

He does not think his idea of the World State a mere Utopia. He thinks it is as practicable as anything and he relies a great deal on propaganda through the Press, and thro' a recast system of not national, but

world education which he discusses in the brilliant pages of this book. In his short resume of his thesis, he says:—

"We need, therefore, before all other sorts of organisations educational organisations; we need, before any other sort of work, work of education and enlightenment; we need everywhere active societies pressing for a better, more efficient conduct of public schooling, for a wider, more enlightening school curriculum, for a world-wide linking up educational systems, for a ruthless subordination of naval, military and court expenditure to educational needs, and for a systematic discouragement of mischief-making between nation and nation and race and race and class and class. I would wish to see Educational Societies organised as such, springing up everywhere, watching local bodies in order to direct economies from the educational starvation of a district to other less harmful saving: watching for obscurantism and reaction and mischievous nationalist teaching in the local schools and colleges and in the local press; watching members of parliaments and congressmen for evidences of educational good-will or malignity; watching and getting control of the administration of public libraries; assisting when necessary in the supply of sound literature in their districts, raising funds for invigorating educational propaganda in poor countries like China and in atrociously educated countries like Ireland, and corresponding with kindred societies thro' out the world."

I'll give one more excerpt regarding what Wells thinks to be the most

urgent need of the day. "Human life" says he "will continue to be more and more dangerously chaotic until a world social idea chrySTALLISES out. That and no existing institution and no current issue—is the primary concern of the present age."

If we think over the history of the last ten years with its great war, its peace problems, the Ruhr troubles and the labour problems—a history of Discontent writ all over the world, we must feel with Wells that the world does need the Salvaging of its civilisation very badly and yet in 1923, we are as far off from an ideal society as possible. Europe has still more men

under arms than it had ever before the war. The independent nations are as keen as ever in their race for armaments in spite of Naval Disarmament Conferences and the nations ever ready with the slightest pretext to be on the war-path. The world-atmosphere is surcharged with seething discontent and with a militant and distrustful aggressiveness towards one another due to distrust and perverse propaganda. Indeed, never did the world stand in such great need of overhauling its own civilisation before as it does to-day. Can we with our spiritual and catholic minds not head for this goal?

MY INDIA.

(By Pt. PARMANAND B. A.)

What a dear expression! 'My heart leaps up in joy'. 'My own, my native land'. 'Dearer than Heaven itself'. But jealous am I. My India is not the dream of the boundary-ridden patriots. Nor is it the 'golden sparrow' of a world bent on political and economical exploitation. With equal force I would repudiate India, a poor copy of the civilized Occident. I am sick of all such platitudes and sophistries. The very word India jars on my ears. For want of a more popular and better-understood word, I have adopted it almost inspite of myself. I am sorry for the limitations which the use of this word imposes on me. But gentle reader! if you bear with me, this word won't stand in my way and my say will be said,

To me India is a culture, a polity. It is the dream of the gods of the Bhagavata, if it is a country at all. It may be Bharata Varsha. But I would prefer Aryavarta. Oh! what holy associations are connected with this name! The moment you utter this sacred symbol, you really conjure up all that is best and noblest in human life. Geographical limits disappear. You become in tune with the Infinite. Political philosophers would dub it idealism. They jeer and sneer at Gandhi's idealism. But where is a greater man today than Tagore, Gandhi and on a smaller scale Vaswani. Dayananda's Aryavarta is a Utopia to many! But you also talk of an Asiatic federation, a world federation of free people. You too revel in painting the

picture of a world-wide labour organisation with ramifications all over. The more cunning of you make the farce of a league of nations. The bustle and turmoil, the buzz of a warring world constantly disturbs your sleep and haunts you like a shadow and then the divine in you turns back (though rarely) to a more peaceful order of things and in still better moments, to God, the embodiment of peace. But my Aryavarta presents a different picture. From the realm of bloody conflict you at once soar high into a domain where equal opportunities are afforded to the meanest and the highest, where storms and strifes are unknown, where there is a real brotherhood of man and man, where there is a struggle for duties and not one for rights, where your pet pan-Islamism, pan-Hinduism all shudder and shrink. The very word Arya betokens harmony and humanity.

Yes, the Land of Aryans ! The vision gets expanded, the horizon becomes brighter. As the sun rises in the East, so does civilisation too take its birth in my Aryavarta. To me it connects a happy synthesis of material, moral and spiritual interests of man but a triumph of the 'I' over the 'It' as represented in the person of Dionysus, the penniless sage who brought the proud Alexander at his feet. Even such is the conquest of the West by the East. The thinking mind of Europe rejoices over it and is proud of the Aryan origin. So is J. K. Nariman, the distinguished Parsi delegate to the last Hindu (should I call it Arya ?) Mahasabha conference at Benares. Says he :—“.....The conference was a splendid success—thoroughly represen-

tative of the whole conglomeration of Aryan civilization—.....

“It (the movement only endeavours to bring the various limbs of the Aryan body. I am glad that the word Aryan is deliberately and advisedly used in the resolution. I wish the movement takes on the character of an Aryan movement, Hinduism being its main branch. I hold that my religion has many points of similarity as well as of identity with Hinduism theological as well as sociological, that Hinduism and Zoroastrianism are two branches of the Aryan religion. I pray the Aryan movement may become strong, so that a federation of Aryan religions may influence Indian and world history..... If properly worked it may lead the world to peace and happiness.”

The view set forth above, though making the closest approach to the tradition of Aryavarta, still savours too much of religious aggressiveness and dogmatism. A certain federation defined and narrowed by notions of Geography and earthly considerations is as much a menace to the world as a possible source of peace and happiness. A more faithful delineation would be a self-contented, valiant, dry, dutiful, and literate India as proclaimed by Ashvapati the Great of Kekaya fame.

Pooh ! Pooh ! They make a dumb, inarticulate lamb of the glorious Bharatavarsha. They would have Aryans speak through other tongues. Politics they would borrow, patriotism they would import, but as if that was not enough, the language also which they use and the idioms and sentiments express would be outlandish. And are they not out for delivering their country

from the foreign yoke ? The children of the soil aspire to be free, leaving the mother-tongue in chains and consigning it to oblivion ! But am I myself not similarly atrocious to my mother-speech? Yes and the extent to which I do so in common with my countrymen, I stand in the way of the fulfilment of my country's destiny. The young-folk of India would have their private correspondence and other transactions in English. 'My dear papa' is a dearer expression to them than any their simple mother-tongue could afford. Well may Gandhi exclaim that his blood boils within him when he sees any boy writing to his father in English. And well may Bhai Paramanand bend his head in shame before his American friends who rushed in joy to see a letter that had come to him from India but alas it was couched in English ! As if India had no medium of communication, it was dumb ! I shrug my shoulders and say this is not my India, far less my Aryavarta. This Aryavarta has a beautiful language all its own, once spoken throughout the length and breadth of the world. Professor Max Muller admits it to be the eldest sister, if not the mother, of all Indo-European languages.

Let alone Aryavarta, my India is not the one generally known. If anywhere, it dwells in villages and hamlets. It is in the sweet chant of some ancient devotional song sung in the early hours of the morning to the accompaniment of the grinding-stone as the peculiar musical instrument of Indian ladies both married and widowed. It is in the humming sound of the spinning wheel that spins into one thread chastity, feminine modesty and honorable living. Your flour-mill has robbed India of its

grindstone. Your Lalimlis and Dhariwal have dealt a death-blow to the spinning wheel of my indigent mothers and the handloom of my workless village weaver and peasant, what to say of the capitalist tyrant of the West who has now brought his shuttle at my very door.

In cities, you would see India finding expression in the Seva Samities, social service leagues. Truly the sweating millionaire with a bucket of cold water sometimes iced and sometimes mixed with *gur* or sugar at some noon train or late in the night represents my India better and more faithfully than my clean-shaven brother of some English University with a hotel bill against his father. The opulent and affluent brother of my ancient India would spend little or nothing on his personal comforts or luxuries. No. Here is a *serai* constructed by some *lala* of revered memory for the weary traveller. There you find a well and a big tree overhanging it for the thirsty and sun-burnt pilgrim. A beautiful garden catches your eye next but the owner seldom takes anything out of it for his personal use. Every thing is for the village folk and the rambling Sadhu. What care I if I don't get in some remote village the long list of vegetables or fruit which, strangely enough, have come to include eggs and fish in the food provisions of a modern city like Lahore. My old fashioned landlord is content with his *sarsen-ka-sag* and *lassi* (curdled milk). Today German and American doctors prescribe this *lassi* for longevity. What if his house is less ventilated, unphenyled, unwhite-washed and uncemented ! It is all the same a stranger to the

hundred-and-one diseases, to your old-new Dingy fever, to fashionable phthisis, pneumonia, influenza and what not. It is a real blessing that he knows little about thermometer. How many die before death on account of the panic created by this little play thing of yours ? Sandow's Grip-bells and chest-expanders are hardly necessary, so also the paraphernalia of gymnastics and costly games. Indian exercises and games are invariably better substitutes, such is his experience. Your newspapers and telegrams spread sensation and heart-burnings all around, why should he not commune with his God all this while. And His simplicity entitles him to such communion. You boast of your railways and steam-engines but at the same time you send away your cow and your horse to some European. My old-fashioned brother has both of them and used to ride in a right royal fashion till only recently. His cow-milk brought him better health and greater nutrition than all your coffees, and cocoas, and chocolates put together. He can tell the hour of the day by the shadow of the sun and the motions of the stars ; what avails your regulator to him ? He has no Albert hair, no Curzonian fashion, about him, but does not the ruddy glow on his cheeks make him look better ? Collars and neckties, why should he have them ? My Jaimal Singh and Fateh Singh kept their heads erect before monarchs like Akbar and being com-

paratively less crooked, my uncivilized villager can even stand erect before God. High-soled boots have proved the curse of many a European lady's eyes, so says Gandhi, and yet the contagion is fast spreading among the un-Indian butterflies of our ladies. Rightly does my ignorant brother of the village scorn the Dawson boots. It smells of Christianity in his simple way of putting it. Your pant is too light for him and out-of-place in a country like India where with a little exertion you begin to perspire. And what purpose will these socks serve with the nasty smell they emit the third day ? The villager thanks his star for freedom from such fashions and frivolities. The hunting coat of the moderner has also little charm for him. It is below his dignity to bring down little sparrows, pigeons and doves with his revolver or gun. Why should he not take to the more manly sport of lions and tigers if the hunting coat means any such thing ? Your kerosine oil, Ditmars also, he knows not, neither has he any need to spoil his eyes by waking long nights. In short, plain living and high thinking constitute me in India. Aryavarta is something still higher.

I pause and a voice from the sky comes into my ears :—

In this Aryavarta lies the salvation of this gifted Aryan nation and the world at large.

CONTEMPORARY THOUGHT REVIEWED.

THE ARYAN LAWS OF MARRIAGE AND MODERN PHYSICIANS.

As western science progresses, it brings to light more and more evidence in support of the principles laid down in the Aryan Shastras. Between the conclusions arrived at and theories formulated by modern doctors and physicians on the one hand, and rules prescribed for the guidance of man kind by seers of ancient times on the other, there are differences only in minor details. One wonders as one finds the greater points of agreement and in contrast only smaller ones of difference, and asks how those sages, in what is called an unscientific age, could make discoveries which science with its elaborate apparatus and well-equipped laboratories, is after centuries of laborious experiments and observations, constrained simply to repeat.

Of all human relations, marriage is of the greatest importance. On it depends the stability of human society. The very continuance of the human race is bound up with the maintenance of the purity of this tie. Scientists have for long been busy in studying the physiological and psychic effects of these unions and have arrived at some very important results. Thus Doctor George H. Napheys, A.M., M.D. in his *Physical Life of Woman* :—

THE DISTINCTION OF THE SEXES.

The frame of woman is shorter and slighter. In the United States the men average five feet eight inches in height,

and one hundred and forty-five pounds in weight, the women, five feet two and a half inches in height, and one hundred and twenty-five pounds in weight. Man has broad shoulders and narrow hips; woman has narrow shoulders and broad hips. Her skull is formed of thinner bones, and is in shape more like that of a child. Its capacity, in proportion to her height, is very little less than in man,—about one-fiftieth, it is said,—which, so far as brain-power is concerned, may readily be made up by its finer texture. Her shoulders are set farther back than in the other sex, giving her greater breadth of chest in front. This is brought about by the increased length of her collar-bone; and this is the reason why she can never throw a ball or stone with the accuracy of a man. Graceful in other exercises, here she is awkward.

Her contour is more rounded, her neck is longer, her skin smoother, her voice softer, her hair less generally distributed over the body, but stronger in growth than in man. She breathes with the muscles of her chest—he with those of his abdomen. He has greater muscular force—she more power of endurance. Beyond all else she has the attributes of maternity,—she is provided with organs to nourish and protect the child before and after birth.

THE AGE OF MARRIAGE.

Such circumstances as hasten the advent of puberty are, says the doctor, fatal to the full development of both man and woman. Among these he enumerates the following:—

Whatever stimulates the emotions leads to an unnaturally early sexual life. Late hours, children's parties, sensational novels, 'flashy' papers, love stories, the drama, the ball-room, talk of beaux, love, and marriage,—that atmosphere of riper years which is so often and so

injudiciously thrown around childhood, —all hasten the event which transforms the girl into the woman. A particular emphasis has been laid by some physicians on the power of music to awaken the dormant susceptibilities to passion, and on this account its too general or earnest cultivation by children has been objected to. Educators would do well to bear this caution in mind.

The reader will see the wisdom of the ancients in prohibiting indulgence in music by the *brahmachari*.

Puberty, however, is no sign of the ability of the girl to bear a child. Says he doctor:—

It does not follow, because a girl is capable of marriage, that she is fit for it. Science teaches us many valid objections to too early unions. It goes farther, and fixes a certain age at which it is wisest for woman to marry. This age is between twenty and twenty-five years.

Anatomists have learned that after puberty the bones of a woman's body undergo important modifications to fit her for child-bearing. This requires time, and before twenty the process is not completed. Until the woman is perfect herself, until her full stature and completed form are attained, she is not properly qualified to assist in perpetuating the species.

From statistics which have been carefully compiled, it is proven that the first labours of very young mothers are much more painful, tedious, and dangerous to life, than others. As wives, they are frequently visited either with absolute sterility, and all their lives must bear the reproach of barren women, or, what to many is hardly less distasteful, they have an excessively numerous family.

What adds to their sufferings in the latter event, is that the children of such

marriages are rarely healthy. They are feeble, sickly, undersized, often with some fault of mind or body which is a cross to them and their parents all their lives. They inherit more readily the defects of their ancestors, and as a rule, die at earlier years than the progeny of better-timed unions.

Is this not a repetition of the wholesome injunction given in Sushrut:—

ऊनषोडशवर्षायामप्राप्तः पञ्च विशतिम् ।
यद्याधत्ते पुमान् गर्भं कुक्षिस्थः स विपद्यते ॥
जातो वा न चिरं जीवेत् जीवेद्वा दुर्बलेद्वयः ।
तस्मादत्यन्त बालायां गर्भाधानं न कारयेत् ॥

SPOUSES TO BE CHOSEN FOR LIFE.

Once forged, the bond of marriage should last for life.

We have said love is a necessity in the life of either man or woman to complete their nature. Its effects, therefore, are eternal. We do not intend this as a figure of speech. It is a sober statement of physiology.

From the day of marriage the woman undergoes a change in her whole structure. She is similar to her former self, but not the same. It is often noticed that the children of a woman in her second marriage bear a marked resemblance to her first husband. In the inferior races and lower animals this obscure metamorphosis is still more apparent. A negress who has borne her first child to a white man, will ever after have children of a colour lighter than her own. Count Strzelewski in his Travels in Australia, narrates this curious circumstance. A native woman who has once had offspring by a white man, can never more have children by a male of her own race. Dr. Darwin relates that a male zebra was once brought to England, and a hybrid race marked by the zebra's stripes, was produced from certain mares. Always

after, the colts of those mares bore the marks of the zebra on their skins. In some way the female is profoundly altered throughout her whole formation, and entirely independent of her will, by the act of marriage, and the alteration is never effaced.

If the body is thus influenced, shall not the far more susceptible mind and spirit be equally impressed?

Another common observation supports what we say, and extends it farther. Not the woman alone,—the man also undergoes a change, and loses a portion of his personality in his mate. They two are one, not merely in a moral sense. We constantly notice a decided resemblance in old couples who have passed, say two score years together. They have grown to look alike in form, feature, and expression. That for so long a time they have breathed the same air, eaten the same fire, and been subjected to the same surroundings, explain this to some extent. But the greater part of the change flows from mental sources. They have laughed and wept together; they have shared the same joys and pleasures; a smile or a tear on the face of one evoked a corresponding emotion and expression on the face of the other. Their copartnership has become a unity. Even without speaking, they sympathize. Their souls are constantly *en rapport*. The man is as different as the woman from his former self.

We cherish the memory of a lady of strong character, who died past eighty. She had survived three husbands, 'The first', she said, 'I married for love, the second for position, the third for friendship. I was happy with them all.' But when, in her mortal illness, this venerable friend sank into the delirium which preceded death, she constantly called out the name of her first husband only. More than half a century had not effaced the memory of those few years of early love. This is fidelity indeed.

ON DIVORCE.

The opinion of the doctor as regards divorce is a positive repudiation of the allowance that certain religions and states are making for human fickleness.

Whether we look at it as a question in social life, in morals, or in physiology, the American plan of granting absolute divorces is dangerous, and destructive to what is best in life. It leads to hasty, ill assortcd matches, to an unwillingness to yield to each other's peculiarities, to a weakening of the family ties, to a lax morality. Carry it a trifle farther than it now is in some of the Western States, and marriage will lose all its sacredness, and degenerate into a physical union, not nobler than the crossing of flies in the air.

Separation of bed and board should always be provided for by law; and whether single, married, or separated, the woman should retain entire control of her own property. But in the eyes of God and nature, a woman or a man with two faithful spouses living, to each of whom an eternal fidelity has been plighted, is a monster.

ON POLYGAMY AND POLYANDRY.

What has been said of divorce applies with tenfold force to the custom of a woman living as wife to several men, or of a man as husband to several women. We should not speak of these customs, but that we know both exist in America, not among the notoriously wicked, but among those who claim to be the peculiarly good—the very elect of God. They prevail, not as lustful excesses, but as religious observances.

It is worth while to say that such practices lead to physical degradation. The woman who acknowledges more than one husband is generally sterile; the man who has several wives has usually a weakly offspring, principally males. Nature attempts to check polygamy by reducing

the number of females, and failing in this, by enervating the whole stock. The Mormons of Utah would soon sink into a state of Asiatic effeminacy, were they left to themselves.

MARRIAGES BETWEEN COUSINS.

There is a difference of opinion among doctors as regards the physiological advisability or otherwise of allowing marriages between cousins. Our doctor is, subject to certain limits, in favour of such unions.

Hardly any point has been more warmly debated by medical men. It has been said that in such marriages the woman is more apt to be sterile; that if she has children, they are peculiarly liable to be born with some defect of body or mind,—deafness, blindness, idiocy, or lameness; that they die early; and that they are subject, beyond others, to fatal hereditary diseases, as cancer, consumption, scrofula etc.

An ardent physician in America persuaded himself so thoroughly of these evils resulting from marriage of relatives, that he induced the Legislature of Kentucky to pass a law prohibiting it within certain degrees of consanguinity. Many a married couple have been rendered miserable by the information that they had unwittingly violated one of nature's most positive laws. Though their children may be numerous and blooming, they live in constant dread of some terrible outbreak of disease. Many a young and loving couple have sadly severed an engagement, which would have been a prelude to a happy marriage, when they were informed of these disastrous results.

For all such we have a word of consolation. We speak it authoritatively, and not without a full knowledge of the responsibility we assume.

The fear of marrying a cousin, even a first cousin, is entirely groundless,

provided there is no decided hereditary taint in the family. And when such hereditary taint does exist, the danger is not greater than in marrying into any other family where it is also found. On the contrary, a German author has urged the propriety of such unions, where the family has traits of mental or physical excellence, as a means of preserving and developing them,

So far as sterility is concerned, an examination of records shows, that whereas in the average of unions one woman in *eight* is barren, in those between relatives but one in *ten* is so. And as for the early deaths of children, while on an average, fifteen children in a hundred die under seven years, in the families of near-related parents but twelve in a hundred is the mortality.

The investigations about idiotic and defective children are by no means satisfactory, and are considered by some of the most careful writers as not at all proving a greater tendency to such misfortunes in the offspring of cousins. Among a thousand idiotic children recently examined in Paris, not one was descended from a healthy consanguinity.

But as families are wholly without some lurking predisposition to disease, it is not well, as a rule, to run the risk of developing this by too repeated unions. Stock-breeders find that the best specimens of the lower animals are produced by crossing nearly-related individuals a certain number of times; but that carried beyond this, such unions lead to degeneracy and sterility. Such, also, has been the experience of many human families.

The consideration that has led Arya law-makers to prohibit consanguinous marriages is not simply physiological, on which phase of the question, too, it is possible to hold more opinions than one. The greater objection to such matches is social. Once you permit unions bet-

ween near relations, the purity of the relation of a sister and brother vanishes. What prevents children of the same parents from marrying each other is exactly the consideration that makes wedlock between cousins repugnant to refined ideas of consanguinous morality. As to the preservation and development of traits of mental or physical excellence, which the German doctor referred to aims at in recommending marriages among cousins, our seers have made ample provision for it by attaching greatest merit to *Savarna vivah i.e.,* marriage in one's own class, misnamed caste.

THE MARRIAGEABLE AGE OF MAN.

The epoch of puberty comes to a boy at about the same age it does to a girl,—fourteen or fifteen years. And an even greater period passes between this epoch and the age it is proper for a man to marry,—his age of nubility.

Not only has he a more complete education to obtain, not only a profession or trade to learn, and some property to accumulate, some position to acquire, ere he is ready to take a wife, but his physical powers ripen more slowly than those of woman. He is more tardy in completing his growth, and early indulgence more readily saps his constitution.

Previous to the twenty-third year, many a man is incapable of producing healthy children. If he does not destroy his health by premature indulgence, he may destroy his happiness by witnessing his children the prey to debility and deformity. An old German proverb says, 'Give a boy a wife, and a child a bird, and death will soon knock at the door.' Even an author so old as Aristotle warns young men against early marriage, under penalty of disease and puny offspring.

From the age of thirty-three to fifty years, men who carefully observe the laws of health do not feel any weight of years.

Nevertheless, they are past their prime. Then also, with advancing years, the chances of life diminish, and the probability increases that they will leave a young family with no natural protector. The half-century once turned, their vigour rapidly diminishes. The marriages they then contract are either sterile, or yield but few, and sickly children. Many an old man has shortened his life by late nuptials; and the records of medicine contain accounts of several who perished on the very night of marriage.

The reader will remember that the age between the twenty-fourth and the forty-eighth year is the period recommended by our *rishi* in which a man may be allowed to marry.

THE TIME OF MARRIAGE.

The rule laid down in the *Shastras* as regards the season of marriage is when the sun is in the Uttarayan. The opinion of our doctor on this point is:—

Woman, when she marries, enters upon a new life, and a trying one. Every advantage should be in her favour. The season is one of those advantages. Extreme heat and extreme cold both wear severely on the human frame. Mid-winter and mid-summer are therefore alike objectionable, especially the latter.

Spring and fall are usually chosen, as statistics show, and the preference is just. On the whole, the spring is rather to be recommended than the autumn. In case of a birth within the year, the child will have attained sufficient age to weather its period of teething more easily ere the next summer.

It almost appears as if there were but one season for generation, that in which the sun re-warms and vivifies the earth, trees dress in verdure, and animals respire the soft breath of spring. Then

every living thing reanimates itself. The impulse of reproduction is excited. Now, also, its gratification is most beneficial to the individuals, and to the species. Children conceived in the spring-time have greater vitality, are less apt to die during infancy, than those conceived at any other time of the year. The statistics of many thousand cases, recently carefully collected in England, prove this beyond peradventure. It is well known that a late calf, or one born at the end of the summer, is not likely to become a well-developed and healthy animal. This has been attributed to the chilling influence of approaching winter; but it is capable of another and perhaps, a truer explanation. Nature's impulses, therefore, in the spring of the year are for the good of the race, and may then be more frequently indulged without prejudice to the individual. Summer is the season which agrees the least with the exercise of the generative functions. The autumn months are the most unfruitful. Then, also, derangements of the economy are readily excited by marital intemperance.

THE MARRIAGEABLE AGE OF WOMAN

The Shastras have prescribed the sixteenth as the earliest and the twenty-fourth as the latest year of a woman's life for marriage. The same appears to be the counsel of modern science to women.

The age of a wife at the time of marriage has much to do with the expectation of children. As the age increases over twenty-five years, the interval between the marriage and the birth of the first child is lengthened. For it has been ascertained that not only are women most fecund from twenty to twenty-four, but that they begin their career of child-bearing sooner after marriage than their younger or elder sisters. Early marriages (those before the age of twenty) are sometimes more fruitful than late ones (those after twenty-four). The interesting result has further been arrived at in England,

that about one in fourteen of all marriages of women between fifteen and nineteen are without offspring; that wives married at ages from twenty or twenty-four inclusive are almost all fertile; and that after that age the chances of having no children gradually increase with the greater age at the time of marriage.

There are two kinds of sterility which are physiological, natural to all women—that of young girls before puberty, and that of women who are past the epoch of the cessation of the menses. In some very rare cases, conception takes place after cessation. In one published case it occurred nine months afterwards, and in another eighteen months. In some very rare cases, also, conception has taken place before the first menstruation.

The older a woman is at the time of her marriage, the longer deferred is the age at which she naturally becomes sterile. She bears children later in life, in order to compensate, as it were, for her late commencement. But although she continues to have children until a more advanced age than the earlier married, yet her actual child-bearing period is shorter. Nature does not entirely make up at the end of life for the time lost from the duties of maternity in early womanhood; for the younger married have really a longer era of fertility than the older, though it terminates at an earlier age.

It has been asserted that compound pregnancies are more frequent in certain years than in others. But that which seems to exert the greatest actual influence over the production of twins is the age of the mother. Very extensive statistics have demonstrated that, from the earliest child-bearing period until the age of forty is reached, the fertility of mothers in twins gradually increases. Between the ages of twenty and thirty fewest wives have twins. The average age of the twin-bearer is older than the general run of bearers. It is well known

that by far the greater number of twins are born of elderly women. While three-fifths of all births occur among women under thirty years of age, three-fifths of all the twins are born to those over thirty years of age. Newly-married women are more likely to have twins at the first labour the older they are. The chance that a young wife from fifteen to nineteen shall bear twins is only as one to one hundred and eighty-nine ; from thirty five to thirty-nine the chance is as one to forty-five,—that is, the wives married youngest have fewest twins ; and there is an increase as age advances, until forty is reached.

EFFECTS OF HEREDITY.

The precautions recommended by Manu to would-be husbands, and by Dayananda to would-be wives as well, find an echo in the laws enunciated under this head by our doctor.

1. First as to physical characteristics.

In general, it may be said that there exists a tendency on the part of the father to transmit the external appearance, the configuration of the head and limbs, the peculiarities of the senses, and of the skin and the muscular condition ; while the size of the body, and the general temperament of constitution of the child, are derived from the mother. Among animals, the mule, which is the produce of the male ass, and the mare, is essentially a modified ass, having the general configuration of its sire, but the rounded trunk and larger size of its dam. On the other hand, the hinny, which is the offspring of the stallion and the she-ass, is essentially a modified horse, having the general configuration of the horse, but being a much smaller animal than its sire, and therefore approaching the dam in size as well as in the comparative narrowness of its trunk. The operation of the principle, though general, is not universal. Exceptions may easily be

cited. In almost every large family it will be observed that the likeness to the father predominates in some children, while others most resemble the mother. It is rare to meet with instances in which some distinctive traits of both parents may not be traced in the offspring.

A peculiar aptitude for procreation is sometimes hereditary. The children of prolific parents are themselves prolific. It is realized that a French peasant woman was confined ten times in fifteen years. Her pregnancies, always multiple, produced twenty-eight children. At her last confinement she had three daughters, who all lived, married, and gave birth to children,—the first to twenty-six, the second to thirty-one, and the third to twenty-seven. On the contrary, sometimes a tendency to sterility is found fixed upon certain families, from which they can only escape by the most assiduous care.

Deformities are undoubtedly sometimes transmitted to the progeny. It is by no means rare to find that the immediate-ancestors of those afflicted with superfluous fingers and toes, club-feet, or hare-lips, were also the subjects of these malformation. There are one or two families in Germany whose members pride themselves upon the possession of an extra thumb ; and there is an Arab chieftain whose ancestors have from time immemorial been distinguished by a double thumb upon the right hand. Darwin gives many similar instances. A case of curious displacement of the knee-pans is recorded, in which the father, sister, son, and the son of the half-brother by the same father, had all the same malformation.

2. Inheritance of mental Equipment.

Of six hundred and five names occurring in a biographical dictionary devoted to men distinguished as great founders and originators, between the years 1453 and 1853, there were, as has been pointed

out by Mr. Galton, no less than one hundred and two relationships, or one in six. Walford's *Men of the Time* contains an account of the distinguished men in England, the Continent, and America then living. Under the letter A there are eighty-t-five names, and no less than twenty-five of these, or one in three and a half, have relatives also in the list ; twelve of them are brothers, and eleven fathers and sons. In Bryan's *Dictionary of Painters*, the letter A contains three hundred and ninety-one names of men, of whom sixty-five are near relatives, or one in six ; thirty-three of them are fathers and sons, and thirty are brothers. In Fétis's *Biographie Universelle des Musiciens*, the letter A contains five hundred and fifty names, of which fifty are near relatives, or one in ten. Confining ourselves to literature alone, it has been found that it is from one to six and a half that a very distinguished literary man has a very distinguished relative ; and it is from one to twenty-eight that the relation is father and son or

brother and brother respectively. Out of the thirty-nine Chancellors of England, sixteen had kinsmen of eminence ; thirteen of them had kinsmen of great eminence. These thirteen out of thirty-nine, or one in three, are certainly remarkable instances of the influence of inheritance. A similar examination has been instituted in regard to the judges of the Supreme Court of Massachusetts, and other American States, with like results. The Greek poet Eschylus counted eight poets and four musicians among his ancestors. The greater part of the celebrated sculptors of ancient Greece were descended from a family of sculptors. The same is true of the great painters. The sister of Mozart shared the musical talent of her brother. As there are reasons, to be detailed hereafter, for believing that the influence of the mother is even greater than that of the father, how vastly would the offspring be improved if distinguished men united themselves in marriage to distinguished women for generation after generation !

GLIMPSES OF DAYANANDA.

A PHYSICAL COLOSSUS.

Dayananda's greatness lay not in his intellectual and spiritual excellences alone, his body, too, was no less a prodigy of physical strength. As he stood amidst large concourses of people, he could easily be distinguished by his towering height. The make of his whole body was gigantic. He had a bulky constitution, which, however, continuous exercise and asceticism had wrought into a solid mould of prowess and power. In his movements he was agile. As he went out for his morning

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constitutional, those that accompanied him had literally to run.

' Sound mind in a sound body' was the maxim that Dayananda in his person typified. Yogis there are, who by continued fasts and self-tortures, emaciate all their limbs, so that for the purposes of physical activity, they are no better than a bare skeleton, incapable, or as some have the hardihood to assert, infinitely incapable, of strenuous exertion. Such, however, was not Dayananda's idea of *Yoga*. In his early years, before he had the good fortune to knock

at the door of the hermitage of his sage Guru, Virajananda, he had learnt all the physical exercises of *Yoga*, and as he somewhere candidly admits, had derived great benefit from them. Yet what is physical is barely physical. Of real *Yoga*, which Patanjali defines as the restraint of inner and outer organs, moral rectitude is the first and foremost factor. Among *Yamas* and *Niyamas*, which according to the author of the *Yoga Darshan*, are the first rungs of the ladder of *Yoga*, there is prescribed *Swadhyaya*, which commentators interpret as the study of the *Veda*. Thus in order to be a *Yogi*, in the sense in which *Rshis* use the term, exertion, physical as well as mental, is necessary. Both these presuppose a sound body and a sound brain. Among one of the achievements of *Yogis* is mentioned आरोग्य, i.e., freedom from disease. And in case a *Yogi* should rivet his attention on his body, he is said to acquire, by the continuation of that attention, an adamantine physical frame.

Such, too, appears to have been the ideal of our ancestors during, and before, what are termed in history the Epic Ages of India. The Arya warriors of old were not the human automata that are driven mechanically to the fields of battle to-day. The work of fighting for the country was, under the old *Varnashram* system, entrusted to *Kshatriyas*, who were *Dvijas* or twice-born, having passed through a second birth by undergoing a course of intellectual and spiritual training at some *Gurukula*. Patriotism was in those times an intelligent sentiment which none but the educated had the right to cherish and profess. Those that in-

cited men to bloodshed under holy pretences of 'maintenance of liberty,' 'love of the motherland,' etc., etc., were themselves responsible for keeping that spirit intact amidst revolting barbarities of war. The development of intellect had, thus, to go hand in hand with the development of the body.

Dayananda who has, by a devotee of his, been characterised as a glimpse of the good old India of the time of *Rshis*, typified, in him, like his forbears of old, harmonious working of all the human powers that conjointly make for perfect human growth. He was a refutation incarnate of the idea, that had of late begun to gain ground, that physical strength and prowess were inconsistent with a keen intellectual acumen. Those that are spiritually great should also be physically great. Sunken eyes are no doubt an indication of nocturnal vigils. They, however, harbinger, also, an early imbecility, which is sure to hasten a premature decadence of the intellect. The work that Dayananda had set before himself was gigantic. It required, for its accomplishment, a gigantic physique, with gigantic capabilities of enduring gigantic strains. A few years before his death he could point to the havoc that constant exertions had worked on his once colossal body. That he could endure such incessant exertion of both body and mind up to the end of his life was due to the early care that he had during his period of preparation, or what some call probation, for apostleship, bestowed on his gradually but harmoniously growing constitution. He had consciously developed it, consciously strengthened it, consciously hardened it, till the process

of deliberate development had given him a whole, unbroken and unbreakable, vehicle of work.

Innumerable are the feats of strength that Dayananda performed and to which witnesses are found even today among old men of some of the places which he had the occasion to visit. It was at Jullundhur that Vikram Singh, one of the big landlords of the place, a *reis*, asked of Dayananda some physical proof of the prodigious powers with which he used always to credit practisers of *brahmacharya*. And the sage, instead of giving an answer, was, silent. After a while, the Sardar made preparation to go somewhere, and a carriage, drawn by a pair of horses, was made ready for him. The Sardar sat in it, and the syce made sign to the animals to start. Finding them loth to move, he whipped them, but their obduracy was unconquerable. Looking behind, what should he see but that Dayananda stood holding one of the wheels with his hand, making it impossible for the carriage to move.

At Wazirabad in the course of a lecture, he held up his hand and called to the wrestlers that had mustered strong in the audience, to come and lower it. None of those present had the courage to answer the challenge.

Passing through a lane he was, all of a sudden, confronted by a huge bullock, which, from its reddened eyes, appeared to be infuriated. Nothing daunted he pressed on, while his companions stood behind, thinking to find out some way of avoiding the ferocious beast. Later when they had joined him,—in what way they crossed that lane blocked by the beast, is not

known—one of them inquired of the sage as to what he would have done if the animal had attacked him. He closed both his fists and said, he would catch it thus by the horns and force it back.

A constable, who had kept watch for the night, sank, terrified on the ground as he perceived the gigantic figure of the sage advancing towards him in the early dusk of the dawn, when the *rshi* was probably returning from his *yogic* meditation in some silvan solitude.

At Karanwas he made objection to the *ras lila*, or dance performance of characters representing Shri Krishna and Radha, arranged under the orders of a Thakur, by name Karan Singh. The latter, getting incensed, came to the habitation of the sage, armed with his sword, and after a furious altercation, actually advanced to strike him, when lo ! the sage leapt from his seat, and with the alacrity of a practised warrior, wrested the sword from the rude assailant's hand, and resting it on the ground pressed it so that it broke in two.

Dayananda never aggressed in fighting. Nor did he ever evince a desire of making show of his physical indomitability. Even when acting on the defensive, he invariably spared his opponent. His sublime vow of Sanyas prevented him from pressing his advantage further. Yet the consciousness that he had with him an immense store of strength on which he could draw at the time of need, made for self-reliance, so that he went about quite undaunted wherever and whenever exigencies of

his mission to spread Vedic culture drove him, often alone in the face of odds.

Physical power, to-day, is the dire need of society. In fields, political, religious and communal, strong invincible bodies are in great requisition. They will aid in fighting patriotic battles. They will save communities from the onsets of other communities. They will, above all, help in carrying the message of the True Faith to lands where barbarism rules, and culture, unless it has, to shelter it, if need be, an invulnerable shield in the shape of a strong physical constitution, is sure to succumb. Let Dayananda then, the Dayananda that was indomitable, as much by dint of his adamantine physique, as by the wonderful radiance of his intellect and the marvellous magnetism of his spirituality serve as a model for that hankering humanity, which is impatient to press its pace in fields alike of politics, scientific physical truth and of religion.

XIV.

THE EDUCATIONIST.

Dayananda wanted to reform humanity at its source. He was conscious that the future of the nations is budding in the hearts of their young hopefules. In order that the reform you make may be permanent, plant your spirit in the hearts of the future citizens of the commonwealth. Spare not the youth. They will help you in moulding the character of the generations to come. To give the hearts of youngsters the trend you will, their immediate elders are a powerful influence. Utilise them therefore, as an influence, but your main hopes should be centred in the citizens that are to be. Look for the

fruits of your efforts from generations yet unborn. It is to this end that Dayananda has devoted many chapters of his books to the question of education. To this topic he reverts every now and then. Young children appear to occupy a very tender corner in his affectionate heart.

He started a school or two, but finding the attempt premature and therefore at the time futile, had to close them down. The atmosphere in which seminaries to his heart could flourish was yet to be created. The boys of the day were not fit to be received in schools of his designing. Nor were teachers available, to whom the sacred charge of the fulfilment of his mission could be entrusted.

Education, as Dayananda would have it, begins from the mother's womb. Preparations have to be made long, even before conception, to make that womb a fit receptacle for a worthy and promising soul. For, according to the *Aryan Shastras* the character of the *atma* that enters a mother's womb depends on the character of the mother. Your invocation, the spirit that characterises your *prana-pratishtha*, determines the grade of the deity that will, with its presence enliven the idol. For long months the aspiring parents remain in close commune, paving by their sound moral musings the way for the advent of a blissful beneficent soul. The more carefully they observe the injunctions of the *shastras* in this respect, the more confident they can be of having a sound, worthy progeny. Their concern increases, as the expected boon is vouchsafed. During the whole period of pregnancy the mother has to be on her guard against all sorts of mishaps. An unworthy idea of the

mother may mar the mind of the child for life, and be carried perchance also to the generations that are to come after him. For five years the chap is nursed and trained by the mother. He learns the alphabet with her. Without overburdening his brain, an attempt is made to stuff his mind with wholesome maxims, and easy verses, full of useful instruction. During early years the memory of a child is very keen and retentive. Unless you give it something salubrious to retain, it will run after questionable matter—some street slang or filthy abuse.

Before the age of eight the child should go to school. This should be a compulsory duty, for the performance of which the parents of both boys and girls should be responsible under the laws of the state. Every attempt should be made to give all children of the land the advantage of a second birth, as the authors of *Arya Shastras* delight in terming the process of acquiring education under a *guru*. A child, found naturally unfit to be taught, can alone be excused. To such are entrusted the duties of a *Shudra*, menial servant. Any the highest lineage should not exempt him from being so classed. For in the interests of society conventional privileges of individuals have of necessity to be sacrificed.

According to Dayananda's scheme—and that scheme was formulated in conformity with principles enunciated by the ancient *rshis*—schools, whether of girls or of boys, have to be located at a distance from townships and cities. Considerations not only of health, but also of the moral welfare of the student community render this

recommendation necessary. For the cultivation of a spirit of learning and meditation, solitary seclusion is essential, a factor that towns can not by their very nature provide. Every little ripple that disturbs the stream of the outer communal life has its influence on the inner flow of the institutions that have their being in it. The noise and bustle which is in the essence of town life can not but be detrimental to the pursuit of studies.

Man learns principally from nature. In the present industrial age, the opportunities of direct contact with the virgin beauties of nature are, if any but few. However prosaic the mind of the mechanical man of today may have become, the poetry that is inherent in the grand and glorious scenes of the everyday phenomena of nature appeals to it with an irresistible force. In fact it is by that poetry that the inner workings of the spirit are, in various persons, directed into their various channels. Lest later life should shut out this chance of direct vision of God with his glories, it is but befitting that the early years be passed in the open, amidst scenes of immaculate joy, of unsophisticated bliss.

Till at least the ages of 24 and 16 respectively, the boys and girls live within such surroundings. The academies are all residential and the relation between the teachers and the taught is personal. In the treatment meted out to the latter, in the matter especially of their physical wants, strict equality is observed, so that differences of birth and of the pecuniary and social position of their parents are effaced, and a spirit of *esprit de*

corps is cultivated by a continued life of willing co-operation and self-reliant inter-dependence. Contempt of poverty, and with it the spirit of self-important superciliousness seeking to dwarf the capabilities of those born only in different circumstances from one's self, a common feature of the artificial system of society of today, is by the very nature of these democratic schools, ruled out of their corporate scholarly life.

The function of education is to fit up the pupils for the varied role that waits them in the civic life of the community. The old four-fold division into classes—a division that every state of society has perforce to observe, whether consciously and with deliberate endeavour to make it efficient in its working or let it drift and shape itself according to circumstances is the problem before the reformer—has to be borne in mind. The present ills of nations, arising out of an inequitable distribution of nature's goods, can be cured, says the *rshi*, by the introduction anew of the now antiquated system of *varnas*. Only, you have to establish that system on a basis of righteousness. Individual merit, and not privileges of birth and inherited means, determine the occupation, and with it the social status, of a man or a woman.

Dayananda entrusts the determination of the class, mistermed caste, to which a pupil shall belong, to the corporation of teachers that have taught him. On this distribution of offices in the communal life hangs, as on a hinge, the future of the whole society. The executive body of the state, Rajya Sabha, gives only official sanction to the decree of the preceptors. From this the reader may

imagine what great dignity attaches to the office of teacher. He decides by what means the future citizens of the country will earn their bread and what, in consequence, shall be their place in society. The treatment they will receive at the hands of their fellow-citizens, in fact their whole destiny as members of the human race, is bound up with the occupation which will give them their living, and that occupation, as we have said, is determined by the teachers.

Dayananda set his face absolutely against co-education of the sexes. Apart from moral considerations, which should dominate in the decision of matters involving continual accompaniment of the sexes, there are also educational and economic drawbacks in yoking persons of different sexes together. To one sex nature allots a longer period for studies than to the other, inasmuch as puberty makes its onset felt among males considerably later than among females. The task, again, assigned to the tender sex is that of mother. A considerable portion of the life of woman is taken up by the duties of maternity which confines them to their home, while men are all the time free to roam where they will. Providence, it appears, has assigned the winning of bread to man, and the management of the household to woman. Such being their respective role in the economy of the community and the household, it is but meet that their training for that role be different. Discrepancies of natural temperament and constitutional make, both physical and mental, point to the same conclusion as regards the arrangement, joint or separate, for their education.

Of languages, Dayananda would begin with the mother-tongue of the pupil, the alphabet of which he would teach him in the mother's lap. Gradually as the instruction of the lad or lass progresses, a knowledge of other languages may, at the proper stage, be added. The medium of instruction can be no other than the mother-tongue. In the syllabus, too, the mother-tongue will, of necessity, be allotted, among languages, the place of honour. While other forms of speech serve some commercial or literary or scientific purpose, a purpose at best secondary, the purpose of the mother tongue is, first and foremost, spiritual—it helps the unfolding of the soul. Mastery of one's own tongue is a perpetual joy, a joy on which the spirit may turn at any time and in any clime. The mother-tongue embodies the evolution of the race to which the individual belongs. It is the spiritual heritage of the nation which none but a bastardly offspring can forego.

For the benefit of beginners Dayananda got a few primers compiled. One of these is *Vyavhar Bhanu*, a mine of sound moral instruction. Another is *Sanskrit Vakya Prabodha*. This latter is a series of conversations on ordinary topics of daily talk. The compilation of this book unmistakably shows that the method that Dayananda would himself adopt for the teaching of a language was conversational, and that the knowledge that he would like his pupils to acquire first was practical, viz., that which should help them in conducting their every day business of life. Book-lore he would add later as an embellishment.

Dayananda, it is objected, was very fond of Grammar. Well versed in that

branch of literature himself, he would place grammar in the beginning of every course of studies that he formulated. In this he differed from modern educationists. As we have pointed out above, his own first treatises written for the use of boys and girls embody a number of dialogues, showing that he would himself teach language by means of language. The *Sutras of Vyakaran* that he would at the same time stuff into the brains of his disciples were to be at the first stage a supplementary study. The case of Sanskrit differs in one respect from all other modern languages. Grammar in those languages does not even approach the exactitude and what may almost be called comprehensive completeness of Sanskrit Grammar. In Sanskrit, grammar is a science. It is by itself a study that should absorb the attention of the pupil if he be resolved to pursue it to the end of its abstract speculations, which latter are some very interesting theories. To Dayananda the paramount necessity of his age appeared to be that of the study of the Veda, in which the misunderstanding of merely a *svāra* or tone would cause a misunderstanding of the meaning of the verse. In the modern age when Vedic idiom is almost obsolete, the thread of correct Vedic learning can be caught again by acquiring a mastery of the *sutras* of Panini. When knowledge of the Veda has become common, then there may be time for reading the Veda, as a part, by far the most important part though, of literature. Then perhaps scholars, acquainted by daily perusals and discussions with the shades of meaning of the Vedic diction and idiom, may find it practicable to dispense with Grammar as a preliminary to the study of the Veda.

An incident from the life of the sage, illustrating what his behaviour towards his pupils would be if he had the opportunity of assuming the role of a teacher will be a fitting close to the present 'Glimpse' from his variedly, and in every phase profusely, instructive career. In a *pathshala* established by him, a wall of a room had fallen and the boys were exposed on that account to all inclemencies of weather. Coming

in the course of a tour to visit that academy he perceived the inconvenience of the pupils and forthwith ordering a thatch to be brought proceeded with his own hands to set up a wall of straw. Never disdaining labour, he was today prompted to it with redoubled impetus by the consuming love of *brahmacharis* which to him as a *bal-brahmachari* was a passion of his life.

THE WORLD OF BOOKS.

The New Japan. By James H. Cousins. Published by Ganesh and Co. Madras. Price Rs. 4.

The author is a well-known Irish poet and writer. His previous writings have already met with appreciative reception. For some time he was Professor at the University of Tokio. Through a poet of Japan, with whom he had formed his friendship, before he set his foot on Japanese soil, he had unique opportunities of studying the inner life of Japan. While living among the Japanese he tried to become one of them. He adopted their ways and lived quite in the native style. The experiences he thus gained he has published in the form of a book. His keen insight into humanity, and his sympathetic outlook on the ways of people of all lands and all countries, of which the lands of the East appear to have special fascination for him, are writ large on every page of the volume. And he has got to say much which should prove enlightening to all other peoples. How though by profession Budhists, the Japanese have become meat-eaters, so that at a certain party which Cousins attended, he

seemed to himself to be the only Budhist present, how western civilisation which the Land of the Rising Sun has been importing wholesale, has changed the whole face of Japan, so that Cousins finds instead of one country many varieties of Japan in the present Nippon; has been mentioned with due pathos. Japanese love of art finds vent in the numerous species of flowers they sow and the designs in paper they make of all sorts of articles they require for daily use. At present there is taking place a fusion of Eastern and Western arts, leading according to Cousins to a happy consummation. So anxious are the Japanese for the preservation of what they regard to be beautiful, so profound is their innate veneration for what pleases the eye, no matter whether it is nature's art or a product of human artifice that even children will not harm the paper lanterns they hang out on some festive occasions, which you may find in their original place and posture till many days afterwards. The outer surface alone—things as they seem—appeals to the Japanese intellect, not the spiritual designing that

is hidden behind the surface. For that would require an effort of inner reflection, of which the Japanese is strangely incapable. Your Browning and Tagore are a very hard nut for the Japanese boy to crack. Teach him poetry that deals with figures and objects—poetry that he can visualise, and that he will instantaneously enjoy.

The change from India to Japan was for Cousins a very sudden one. While physically residence in the former country prepared him for his life in the latter, so that he could easily dispense with chairs, etc. and accomodate himself without inconvenience to life on the floor, the politically dependent state of India, with its necessary concomitant, a slave-m mentality among the people, made the contrast which the absolute freedom of Japan presented to the state of things here, striking and difficult to adapt one's self to. He expected *salams* from the constables, and to do penance for the unworthy wish, went to ask of one an unnecessary question, for which he had, according to the usage of the country, to make a bow. The book in short is interesting and will much interest the reader.

The Cage of Gold. By Sita Chatterjee. Translated into English by A.E. Brown, M.A., Principal Wesleyan College, Bankura. Published by R. Chatterjee 210-3-1 Cornwallis Street, Calcutta.

The story told in this book of just 200 pages is a simple and interesting one. The plot is judiciously laid and there is not a single redundant scene. The heroine of the story is Urmila, the daughter of a woman who had married according to her independent wish,

and was murdered by the capricious husband she had chosen for herself. A lover of her mother somehow took hold of the child and brought her up in the solitude of his wealth-decked mansion. He left a will, by means of which he settled on her a property of a very high value. To his gift, however, he attached a condition that she should marry a husband whom he named and appointed in the wish. Till the marriage she was to live in the house of a Brahmo friend of his. The girl in the meantime developed affection for the son of her new guardian, in whose company she now spent her days. She was thus placed on the horns of a dilemma. On one side there was vast wealth and the prospect of a life tied up with one whom she did not love. On the other side was a young man of ordinary means who offered her his heart—he perhaps was divinely appointed to be her mate. The struggle was hard and long, but at last the right bid was made. The decision of the maiden is announced on the last page, so that the interest of the story is kept up to the end. One misses the dexterous unfolding of mysterious and complicated working of lovers' minds met with in novels by master hands. The design of the writer of this novel appears to be simpler, and as such has been well executed. The get-up of the book is beautiful and the printing neat and correct.

आसन—By P. Satvalekar. Published by Swadhyaya Mandal, Aundh, Dist. Satara. Price Rs. 2.

The book, as its name indicates, sets out a number of postures of the body, which, besides other benefits claimed for them by those that know, con-

stitute a useful system of exercise. They require no apparatus and are therefore very cheap, costing absolutely nothing to perform. P. Satvalekar has, as is his habit, systematised them. A speciality of this system is that it develops both nerves and muscles and yet does not stiffen the limbs. On the contrary it makes all the limbs elastic. In certain diseases also, some of the *asanas* have been found of great benefit.

वैदिक धर्म की विशेषता—By the same author Price as. 8.

The author in this booklet quotes, as is his wont, Vedic verses to show that the religion of the Veda is all-sided. It takes into consideration all phases of human life viz., physical, political, social and spiritual. This is its distinctive feature which marks it out from other religions.

EDITORIAL REFLECTIONS.

THE LEADERS' MANIFESTO.

A declaration signed by a hundred leaders, including Hindus, Mohammedans, and Sikhs has for the last few days been going the round of the press. The manifest object of it is to emphasise the duty of keeping civic peace, which every religion, if it does not belie the sacred epithet 'religion', the halo of which it wears and is on account of it held in reverent esteem, ought to and does, as it seems to us, in fact, teach. The manifesto runs :—

In view of the recent deplorable disturbances we the undersigned Musalmans, Hindus and Sikhs hereby declare, that if any individual or group of individuals, belonging to any community commits any act of violence against, or attacks the person, property or honour of, women or places of worship (mandir, mosque, church or gurudwara, etc.) of his neighbours or fellow townsmen or helps those who indulge in such misdeeds, he is, from the religious point of view, guilty of a great sin ; and that it is the duty of co-religionists of such offenders to stand

up to resist these miscreants and to protect those who are so attacked. We further appeal to the followers of every religion that they should act, each towards the other, with mutual toleration and regard for the religious ideas of their neighbours and townsmen.

The truth enunciated in the above lines should be patent to men even of the most ordinary intelligence. The professed object of religion is to make men divine. The brute in human beings it is the professed aim of every religion to suppress and kill. If religion ranges men on opposite sides, and arms them with weapons other than those of the spirit, it stultifies its own purpose. There are occasions when it becomes necessary to shed human blood. For instance, when the honor of women has been outraged, no matter of what religion and race those women are, or when the opponent is guilty of aggression, from which there is no way of escape except through force of arms, or when liberty of thought and action in matters especially with which is bound up the spiritual welfare

of human beings, is in danger, on such occasions it is sheer cowardice to recede from sanguinary fight, provided all other means of averting the basely tyrannical have been tried and failed. The Arya community never took up arms to blot out differences of religious opinion. Of metaphysical speculation there has been a good deal among thinkers of this community itself. It is on account of this very religious freedom to which there was, in the past, no check among the Aryans that the sublime flights of philosophy, in which the Indians of today rightfully take delightful pride, have been possible. Indian genius became barren when as a result of the contact with other cultures the tyrannous practice of stifling independent philosophic opinion was adopted by the people of India. Annals of both Rajput and Maratha kingdoms abound with instances of manly chivalry practised by members of these clans in the event both of victory and defeat. Not a single mosque was demolished by the Arya conquerors. Not a single copy of the Koran was desecrated. Not a single woman was offered insult for the reason that she was Mohammedan. With what parental care Durgadas brought up Safiat-ul-Nasa, the granddaughter of Aurangzeb during the tender days of her wardship with him, how he managed to teach her the Koran, while treatment quite the opposite of this, was meted out by Aurangzeb to the heir-apparent of the Rajput throne, forms a glorious chapter of Rajput history. Even today it is a matter of well-merited pride to the lionine Lala of the Panjab that his co-religionists have during the inter-

communal skirmishes that took place in various parts of the country refrained from making attack on female honor a legitimate game in war tactics. The old spirit of chivalry towards women even of a hostile community yet lives. It is quite in conformity with Aryan traditions that Gandhi, one of the pick of his community, has celebrated the marriage of a female Mohammedan ward of his as if the girl were his own child.

If Mohammadans—not the leaders only but the rank and file also—were to imbibe the fine spirit embodied in the manifesto all ignoble strifes between the communities that disfigure the contemporary history of India, and to us appear to be a great impediment in the way of Indian self-rule, should cease. The Hindus are already practising the golden virtue of self-restraint sought to be inculcated in the leaders' manifesto and if Hindu leaders have put their signatures to it, it is out of courtesy to their Mohammedan co-patriots. The sentiment at work behind this joint declaration is that of a desire to cloak the exclusive character of the criminal habits of one of the communities. We wish our brethren of Islam should appreciate this feeling and make a befitting response to it.

The difficulty with the rowdies among Mohammadans is that some of the Mallas of that community whose influence with the masses is great have a very perverse idea of the injunctions of their religion under this head. Maulana Abdnl Bari, a few days ago, issued a *Futwa* or what we regard as such, that in his opinion the right to

disseminate his faith was a special privilege of the Mohammadan and that with a renegade from that religion he could never be at peace, though with a scorpion or a snake he might. Khwaja Hasan Nizami, another alumnus of the Arab creed has been seeking aid of his alien sisters, the prostitutes, to help in the spread of Islam through their inglorious profession. As one comes across such ignoble writings which to us seem to be the travesty of religion, one feels tempted to strike off the name of Islam from the sacred catalogue of religions. For religion, as we understand it, is a word with holy associations, a word which, as it is uttered, arouses feelings of profound veneration and regard.

It is our sincere wish that the Mohammadan signatories to the above manifesto should take courage into both hands and declare peaceful Jihad with the other section whose sole aim is to tarnish the fair name of their religion. We doubt if the name is yet fair. It should infinitely appease us if the real exponents of Islam should be these enlightened souls of balanced minds and not the perverse followers of Abdul Bari and Hasan Nizami.

What appals us most is the dreadful prospect of a revengeful resolve that Hindus in some parts of the country are inwardly forming of returning a blow for a blow and meeting an atrocity with a like atrocity. The future of the Arya race hangs in the balance. The Hindu, brought to sore straits that he is, may bid farewell to the glorious traditions of his ancestors, and be prompted by a spirit of triumphant revenge to defile the shrines of

the Musalman, and what is more terrible to contemplate, make ignoble discriminations in his observance of rules of chivalry towards his sisters of his own, and those of his opponent's, faith.

The manifesto comes not a minute too early. That it has the salubrious effect which it is intended to make, will be judged by the future attitude of Mohammadans to their compatriots of other communities. The prospect at present is gloomy.

A FANCIFUL COMMENTARY ON A LINE OF VALMIKI.

Some say, Shakespeare never intended to put into his lines the meanings that commentators of later days have read into them. Could Valmiki have intended to signify by a line of his what Mr. T. V. Krishnaswami Rao makes that line signify in his "Half Hours with Valmiki" appearing in the *Kalpaka*.

The fancy of the writer has suggested some twenty simultaneous ideas that Sita wanted to express by a single act of hers. The reader will find these ideas an interesting reading.

Thrinam, Antharathah Krithva prathyuvacha Suchismitha.,

तृणमन्तरतः कृत्वा प्रत्युवाच शुचिस्मिता ।

(Sita) maintaining her usual smile, laid a piece of grass on the ground (before the advancing Ravana) and (with her eyes turned towards it) spoke to him thus.

Maintaining her usual smile.

1. She pitied him for his one great weakness that hopelessly marred the brightness of the many brilliant qualities he possessed.

2. She doubted if a woman-stealer like him would ever think of facing the enemy in the open field.

3. She laughed at his ignorance of the eternal law of nature 'They that sow wickedness reap the same.'

'Laid a piece of grass.'

1. To offer a seat to guest is the primary duty of a host's attention; and Sita unable to procure a finished mat offers him a single blade of grass to sit on, requesting him to accept the will for the deed.

2. She thought that he would leave her alone, if she paid him the courtesy of a subject to the sovereign and offered him a seat accordingly.

3. She created a partition between her persecutor and herself by throwing a piece of grass before the advancing Ravana.

4. Being forbidden by religious laws to have any direct conversation with a stranger, she began to address him looking at the blade of grass.

5. She wanted to create an impression in his mind that the inanimate stuff on the ground could be more easily converted into a human being endowed with human intelligence than the thick-headed monster standing in front of her.

6. She seemed to tell Ravana that he had forfeited his claim to the realm of human beings, and as such he had like an animal to live upon grass alone in future.

7. She warned him that, even like a piece of grass he would fall an easy prey to the fury of the elements.

8. She made him understand that all his riches and powers were but a trash to her.

9. She appeared to tell Ravana that the grass piece at least possessed better qualities, inasmuch it had no such thing as jealousy, anger etc.

10. She asked him to acknowledge his defeat at the hands of the arch-wrestler Rama by 'biting the grass'

11. She reminded him of the presence of the All-powerful even in the tiny grass piece, who would not hesitate to make his appearance therefrom in the same way as he came out from a stone pillar in the form of Man-lion (Narashima) and rescued the youngster Prahlada from his tormentor Hiranyakasipu.

12. She swore upon the grass that Rama would surely take away his life for all his misdeeds.

13. She threatened to reduce him by a curse to a blade of grass.

14. She warned him that she would plunge the grass bit in his eyes even as Mahavishnu pierced the eyes of Sukracharya when he offered resistance to him in his dealings with Mahabali.

15. She gave him to understand that Rama was able to pierce the eyes of a demon (Kakasura) with an ordinary piece of grass and it would not be long before he used the very same weapon even in his case.

16. She seemed to infuse the fire or chastity into the little thing the potency of which could in a moment burn all the seven worlds.

17. She appeared to say that she would cut him down into so many pieces like the one on the ground.

18. She made him understand that she considered her life as trash wherein her honour was concerned.

19. She exhorted him to remember the use of grass as an essential material in the making of a hut, for ere long his kingdom was going to be reduced to ashes by Rama with no trace of any dwelling place at all.

20. She expected that by her determination not to look at him, he could understand her mind and leave her alone.

A HUMANE SLAUGHTERING DEVICE.

The Mohammadan reads his *takbir* when killing his food-animal, while

the Sikh sticks to his *jhatka*. And western science, and with it western humane feeling, is dissatisfied with either of these methods of disposing of the animal. Here is an extract from *Our Dumb Animals* delineating a new device and the success it has met with :—

The National Committee on Slaughterhouse Reform, with a Committee from the American S. P. C. A., of New York, (the Society that offered the Ten-Thousand Dollar Prize for a humane slaughtering device) visited Omaha, Nebraska, recently to witness a demonstration of killing cattle, sheep, and swine by electricity. This visit was made upon the invitation of one of the large packing-houses of the country, a concern having 26 different abattoirs in the United States. The experiment was being made with electricity because a member of the firm had been shocked at seeing an employee of the company strike a steer 26 times before he destroyed it. "This is horrible," he said "we must find some better method."

Before the Committees made the visit they asked, "Does your method of killing by electricity render the animal instantly unconscious?" Is it wholly painless?" "Is there any possibility of returning to consciousness before the use of the knife?" To the first two questions the answer was "Yes"; to the last "No." This was difficult for us to believe, for we had had the best authority for stating that animals stunned by electricity would not bleed out properly and so the meat from their carcases would not keep.

What did we find? The Company, sincerely working for a humarer method than the hit-or-miss one of the knocking-hammer, had discovered that an animal shocked with a high voltage would not bleed out, and that therefore, the meat would not keep a sufficiently long time to answer commercial purposes. They had then reduced the voltage to something like 400 or less and found that the animal

dropped, became motionless, could easily be hoisted up and bled, and that the blood flowed freely.

But what about the animal meanwhile? It was suffering torture, if the testimony of human beings so shocked is to be believed. There could be no doubt of it. We had with us as one of the Committee of the American S. P. C. A. the president of the New York State Veterinary Association, a thoroughly trained scientific veterinarian, who examined animal after animal and found that, while the current did produce more or less effectively *motor* paralysis, it did not produce paralysis of the *sensory* portion of the cerebrum or fore-brain, which controls the sense of feeling, as was manifested in the remaining reflexes of the eye and eyelids of the animal several minutes after being shocked.

To lie upon the slaughter floor, to be hoisted, and to have the throat cut, while powerless to move but still keenly alive to pain, is a horror one vainly tries to imagine.

And what about this suffering? Innumerable witnesses who have experienced these shocks which did not kill affirm that the agony endured until the current is shut off or they loose consciousness is beyond description. We talked recently with an expert electrician who was caught by a low voltage current and held for some short time who said, "No words can portray what I suffered. My eyes seemed as if they would leap out of their sockets, my heart appeared to stop, I could not breathe, my chest felt as if it was on fire, I hoped I could die, then I became unconscious."

We believe this scheme of destroying our food animals by electricity is settled once and for all, that it will not be tried out again in the light of what was demonstrated at Omaha. Our hope is that the report of the device to be given practical test in Chicago, and of which we wrote in our last issue, will be a very different one.

A Bill with some similarly humane object was thrown out the other day

by the British Parliament, because the Jewish population of the British Isles would not allow deviation from the time-honored Mosaic practice. *The London Morning Post* has the following comment on this, to it unpalatable, event:—

"The Jewish practice, which follows what may be called the Mosaic ritual, is to cut the animal's throat and leave it to bleed to death; and to preserve this practice Jewish influence is exerted to prevent any change in the law, as applied even to Gentile slaughter-houses. For although the Jews insist on their own ritual, they do not provide their own slaughter-houses. They cause to be killed many more animals than they consume, and it is estimated that at least 70 per cent of the slaughtering in the Islington abattoirs is done in the Jewish method, under which an animal may retain consciousness for some minutes after its throat has been cut. The very moderate Bill which was moved yesterday would not prohibit the Jewish method, but would give the Minister of Health power to grant special exemptions, from the general law in approved cases; which means that if the Jews cared to establish and maintain their own abattoirs, they would be at liberty to do so, but that the country generally would be redeemed from the reproach of a tribal barbarism. If the Jewish community insisted on its own methods for its own people, there would be less to be said of its attitude to this question; but that it should obstruct reform as relating to the non-Jewish population is intolerable. The Bill, on which all parties—and all interests except that of Jewry—are agreed, could be passed in ten minutes but for this selfish and sectional opposition. It is a scandal that a measure of simple humanity should be held up in this way in the interests of a fractional section of the community."

That a feeling of humanity towards animals has begun to stir, or let us say

disturb, western hearts is welcome. The way, however, to carry the holy wish into practice is vegetarianism enjoined by the Arya *shastras*, and not the doubtful half-way methods of diminishing the torture at the time of killing.

BUDDHA ON CHRISTIAN CALENDAR.

B. P. Wadia, writing to *Orient*, has the following remarks as regards the inclusion of Budha among Christian saints:—

(Dr. de Filippi) spoke of the many parallels between the Buddhist and Christian faiths, and finally startled his audience by boldly declaring that Guatama Buddha is to be found in the Roman Catholic Calendar of Saints under the name of St. Giosofatte, or Josophat, venerated on the 27th of November, and that story of Barlaam and Josophat is really the story of the young Buddha and the holy man who showed him the signs of suffering, age and death.

This religious romance called "*The History of Barlaam and Josophat*" was for several hundred years one of the most popular works in the whole of Christendom, and was translated into every European tongue, including the Icelandic. It has been used by Catholic missionaries with the greatest success, and has furnished many of the early playwrights with material for their miracle plays, no lesser lights than Boccaccio and Shakespeare having been lured by its romantic possibilities.

We find this Christian story first appearing in Greek among the works of John of Damascus, a theologian who lived in the first part of the eighth century, and by peering a little into the life of the man before he was made a saint both in the Greek and Latin Churches, we find the possible clue to the mystery of how the Buddha became a Christian Saint. For this St. John held a high office at the

court of the Caliph Abu Jafar al-Mansur, as did his father before him. Here he seems to have heard the story of Guatama Siddharta, the Buddha, and after his adoption of the monastic life he could easily have adapted the story, changing the names to suit the new dispensation. The story, roughly sketched, is as follows:

After the conversion of the people of India by St. Thomas, a powerful pagan king, Abenner by name, began a persecution of the Christians. To this king was born a son, matchless in beauty, thoughtful and devout in character, to whom was given the name Josophat. After the prediction of an astrologer that the kingdom of the young prince would not be the paternal kingdom, but another infinitely more exalted, the king causes a palace to be built where his son should live, surrounded only by tutors and servants in the flower of youth and health. Here the young prince was to be kept free from contact with poverty, disease, old age or death, so that no inducement would be found to tempt him into the outside world, and so that no word of Christ and His religion would ever penetrate into his seclusion.

Here the young Prince Josophat passes his youth. But one day, through neglect of orders, he goes outside the palace gates, and encounters a leper and a blind man. In astonishment he asks his attendants what such things mean. They tell him with reluctance that these are ills to which the flesh is heir. On another occasion he meets old age, and contacts death. Again the questions—is this the fate of man, is there no way of escape? He goes home with these questions in his heart, seeking for an answer.

At this time Barlaam, a hermit of great sanctity and knowledge, gains access to the young prince, to whom he imparts the Christian doctrines and commends the monastic life. Suspicion arises and Barlaam departs. But all attempts to shake the young prince's convictions fail. At length Josophat renounces his kingdom and departs for the wilderness, and

after many years of wandering finds his old friend Barlaam again. After the death of the latter, Josophat survives as a hermit for many years. After his death, the two bodies are transferred to India, where they are the source of many miracles.

It will be seen by the most casual observer that this story agrees, not only in broad outline but in essential details as well, with the well-known story of Guatama the Buddha.

Further than that, the word *Josophat* (which in Arabic is *Yudasatf*) is a corruption of *Bodisat*, due to a confusion between the Arabic letters for Y and B, and it is well known that Bodisat is a common title for the Buddha.

The identity of these two stories have embarrassed many of the Christian ecclesiastics, and we hear Dominic Valentyn complaining: "There be some who hold this Budhum for a fugitive Syrian Jew, others for a disciple of the Apostle Thomas; but how in that case he could have been born 622 years before Christ I leave them to explain!" Later we find the historian of Portuguese India, Diogo do Couto, telling us of his travels in the Isle of Salsette, where he saw the pagoda called the Canara (Kanhari Caves) made in a mountain with many halls cut out of the solid rock. Here he inquired of an old man as to who had done this work, and was informed that without doubt the work was done by the order of the father of St. Josophat, so that the young prince could be brought up in seclusion. The historian continues: "And as the story informs us that he (Josophat) was the son of a great king in India, it may be well . . . that he was the Budao . . ."

Since the days of John of Damascus, the heroes of his story have attained saintly rank, as Petrus de Natalibus included them in his Catalogue of the Saints, and Cardinal Baronius inserted them in his Martyrologium, authorized by Sixtus the Fifth under the date of the

27th of November. In the Orthodox Eastern Church "the holy Joseph, son of Abener, king of India" is allotted the 26th of August, and in Palermo a church dedicated to this same saint exists.

Here we can do no better than to quote the words of Prof. Max Mueller:

"Whatever we may think of the sanctity of the saints, let those who doubt the right of Buddha to a place among them, read the story of his life as it is told in the Buddhistical canon. If he lived the life that is there described, few saints have a better claim to the title than Buddha; and no one in the Greek or the Roman Church need be ashamed of having paid to his memory the honour that was intended for St. Josophat, the prince, the hermit and the saint."

APOLOGIA FOR MOHAMMADAN POLYGAMY.

It is a happy sign of the times that Mohammadans, especially those that are enlightened among them and have a broader outlook on religion than that of the ecclesiastic zealot, are seeing the defects of the institution of polygamy in Islam, and instead of upholding the doctrine, are finding pretexts for the permission of more than one marriage ties at the time when the Prophet lived. Says H. A. Noureddin Addis in an article contributed to the above journal:—

In Arabia, during the early days of Islam, polygamy performed a mission of inestimable worth to the Muslim people. Previous to the time of the Prophet civil warfare among the Arab tribes had so greatly reduced the male population that among this primitive and barbarous people it was considered the proper procedure to put to death new-born girl babies. This had grown to be a custom, dictated doubtless by what seemed to them good and sufficient

reasons,—viz., the vast outnumbering of Arab men by Arab women. It was among the pre-Islamic Arabs that the savage saying gained currency: "The grave is the best son in-law."

Then again, at this time in Arabia the usual sexual relation was the free-union. It was a condition of free-love in its most repulsive aspect, wherein the position of the female was little, if any better, than that of a prostitute. Thus it was that the first task confronting the new faith was to ameliorate this condition and give the woman and her child both legal and social status.

Muslim polygamy, then, among these people meant that as many as four women could be rescued from this state of degradation and misery and elevated to the rank of wife by one man; thus saving their children, if not from a violent death, at any rate from the evils and miseries resulting from the absence of all civil rights. Monogamy alone, in this society where the female outnumbered the male population so vastly, would have been totally inadequate to work the redemption of woman as did a reasoned polygamy during the early years of Islam.

The early Imams (commentators on the Islamic doctrines) soon subordinated the practise of polygamy to such variety of onerous restrictions as in reality to interdict it. Aside from this the Quran and Hadis (Traditions) are replete with texts extolling the pleasures and virtues of the monogamic state; thus indicating it as an ideal system, not then wholly practicable. In his History of the Saracens Seyyid Ameer Ali says: "The Arabian Prophet, by imposing a limit to the custom indirectly forbade polygamy, but made it conformable to all stages of society." No less than six of the narrators of Traditions of the Prophet have related that he said: "He who possesses two wives, but inclines towards the one, he shall appear on the day of resurrection with half of his body mutilated."

lated." The following is from the Quran : ". . . take in marriage such other women as please you, two, or three, or four, but if ye fear that ye shall not be able to do justice to them, marry only one. . ." Many Muslim jurists, basing their argument upon the fact that it is next to impossible for a man to possess more than one wife without feeling a preference toward one above the other or others, have held that this verse alone is sufficient to abolish polygamy.

However that may be, to the Quarnic student this fact stands out clear and distinct : In the mind of the Prophet the institution of polygamy, in opposition to monogamy, was not to be adopted except in view of certain exceptional social conditions such as those existing in Arabia during his time.

Beyond doubt polygamy is, in principle, a faulty institution.

GANDHI AND EUROPEAN CIVILIZATION.

M. Romain Rolland is now a famous name in the world literature. He is the author of the novel 'Jean Christophe' which brought him the Nobel Prize for Literature. To the French review "Europe", he has contributed an essay on Gandhi. We make the following excerpt from quotations from it made in *the Hindu* :—

Since the time of Rousseau, the arraignment of modern civilisation has been ceaselessly made by the most liberal minds of Europe, and awakened Asia had only to search in these records of arraignment for providing itself with a formidable weapon against its invaders. Gandhi himself has not failed to do this, and his "Hindu" "Swaraj" enumerates a list of these books of denunciation, amongst which a good number is written by Englishmen themselves. But the irrefutable book is that which European civilisation has itself written in the blood of races, oppressed bled white and out-

raged in the name of the chief sinners : and this same thing has been the astounding revelation of the hypocrisy, the rapacity and the ferocity shamelessly displayed before the eyes of the world by the last war, called the war of civilisation ?. So great was Europe's shamelessness that she invited the peoples of Africa and Asia to see her own nudity. They have seen it and judged it, too,

"The last war has shown the Satanic character of the civilisation that dominates Europe to-day. Every canon of public morality has been broken by the victors in the name of virtue. No lie has been considered too foul to be uttered. The motive behind old crimes is grossly immaterial.....Europe is not Christian. It adores Otamon."

Both in India and Japan, such thoughts have been many times expressed by even amongst those who are too prudent to expound this fact openly, this conviction is inscribed firmly in their hearts. And this is not the least ruinous consequence of the Pyrrhian Victory of 1918. Gandhi, however, had seen the true character of Western civilisation even before 1914; it had exhibited itself to him without any mask, during the 20 years of his South African life. In his "Hindu" "Swaraj" of 1908, he denounced modern civilisation as "the great evil."

Civilisation, says, Gandhi, is only that in name. It is, according to a Hindu expression, "the dark age." It makes material greatness the sole aim of life. It makes the Europeans dote upon the acquisition of wealth and enslaves them to it, deprives them of all peace and interior life, it is a hell for the weak and for the labouring classes and it undetermines the vitality of races. This satanic civilisation is bound to be consumed by its own fire. It is this civilisation which is the true enemy of India, more so than Englishmen themselves who are not individually evil hearted but only frantic about their civilisation being infected with its virus. Thus Gandhi

combats the view of those of his compatriots who would like to draw away Englishmen from India, for making India "a civilized State", civilized in the modern sense. "This would be the nature of the tiger, without the tiger itself." Now the great and the only effort to be put forth should be directed against the civilisation of the West.

"Since thousands of years India remains unshaken" alone, in the midst of the changing currents of empires. Everything else has passed away, but India has learnt to make the conquest of mastery over self and the knowledge of happiness. It has not wished to possess machinery and great cities. The old chariot and ancient indigenous education have ensured its wisdom and its good. We have now to get back to this ancient simplicity, not by one leap, but gradually and patiently, following the examples of individual leaders.

This is the kernel of his thought and his is serious enough. It lays down the negation of Progress and also of European science. This mediæval faith runs the risk of coming into clash with the volcanic movement of the human spirit and of being shattered to pieces. But it would perhaps be prudent to say not "of the human spirit" but "of one human spirit" for if one can conceive (and I do) of the symphonic unity of the universal spirit, it is made up of many voices each of which follows its own path: and our youthful West, carried away by its rhythm, does not think enough that it has not always led this symphony, that its law of progress is subject to eclipses, to contrary movements and recommencements and that the history of human civilisation is, more exactly, the history of the civilisations and not merely of one civilisation alone.

Without, however, discussing here the European dogma of Progress, and in only considering the bare fact that the actual movement of the world is contrary to the vow of Gandhi, we should not be led to suppose that the faith of Gandhi is going

to be shattered. To think so would only be to misunderstand the oriental mind, Gobineau says that "the Asiatics are in all things; much more obstinate than ourselves: if necessary they wait for generations for the fulfilment of their hopes, and their ideas, even after the lapse of a such a long time, never suffer from loss of vigour or enthusiasm." Centuries cannot frighten a Hindu. Just as Gandhi is ready to welcome success for his efforts within one year, he is equally ready to wait for it for centuries together, if necessary. He does not wish to hasten time, and if time itself slackens pace, he also does the same. If he finds India insufficiently prepared to understand and practise the radical reforms which he wishes to be introduced in the land, then he knows how to adopt his course of action to possibilities. We cannot at all be astonished to hear this irreconcileable enemy of machinery say, in 1921,

"I would not deplore the disappearance of machinery but I have no hatred actually against the machines," or further "The law of complete love (without exception or restriction) " is the law of my existence. And, I do not want this law to be universally applied to all political measures which I extol.....That would be to condemn ourselves in advance to rebuffs and defeats. It would not be reasonable to expect the rabble to conform scrupulously to this law.

I am not a visionary, I claim to be a practically idealist" (11th August '20) Gandhi's description of himself is correct. He demands from men only what they can give, but he does demand from them all they can possibly give, and this is indeed a great thing in India whose people are large in numbers, in traditions and in the development of the soul. Between his people and Gandhi, from the first moment of contact, there has existed perfect harmony, and they have understood each other without any outward expression of their feelings. Gandhi knows what he can expect from them, and the people also

know what he will demand of them. Between the two, the bond of connection is first and foremost, "Swaraj," or Home Rule for India.

"I know," writes Gandhi, that Swaraj is the aim of the nation and not non-violence."

And he even adds the following words which really stupefy us with wonder,

"I would rather see India freed by violence than see her chained to slavery by the violence of her oppressors."

But he soon corrects himself. "This is to suppose the impossible, for violence can never free India, and Swaraj can never be attained without the forces of the soul which form the proper weapon of India the weapon of love, the force of truth, Satyagraha. Gandhi's stroke of genius consists in his having revealed to the people of India the true nature and the concealed strength of this formidable weapon.

AGNI THE SOURCE OF MATTER.

That light may be the prime cause of matter is a speculation of Sir Oliver Lodge stated at length by him in an address to a learned audience. The *rshis* of old held Agni to be a subtle form of matter. They went a step or two further, resolving Agni into Vayu and Vayu into Akasha. The tendency, however, shown by modern scientists towards finding a finer root of matter than the gross elements indicates that they are proceeding in the same direction. We reprint the following gist of the address published in *the Times*, educational supplement :—

What happens to the waste radiation in space? The earth catches less than a two thousand millionth part of the solar radiation, and this seems to have been going on for hundreds of millions of years. The fraction we absorb is of vital importance to us; it produces our weather, sustains the green vegetation which is the foundation of our food supply, and makes the

earth habitable. Is all the rest wasted? The radiation from many of the stars is still greater. Space is so enormous that it is no warmer, although thousands of millions of suns have been pouring out their energy for thousands of millions of years. What happens to the radiation.

These questions were raised by Sir Oliver Lodge in an address to the staff of the National Physical Laboratory, recently printed in *Nature*. He insisted on our right to repel the idea that so much energy was wasted. He rejected a suggestion made by Sir W. Siemens as to the possible concentration of all the radiation by total reflection at an aether boundary, on the ground that he cannot imagine an aether boundary, a physical limit to space. He has offered the extraordinarily interesting speculation that light (using the word to cover not merely visible rays but all radiations, including X-rays and other forms of short-wave radiations) somehow generates matter,

Light is known to exercise pressure, as was first shown by a little toy made by Crookes, which spun round when light fell on it. Its advancing wave-front possesses momentum, which it transmits to any obstacle that either reflects or absorbs it. And so when a wave front from any of the stars is advancing through "empty" space, may be for hundreds of years, according to the third Law of Motion—the universal truth of which must be assumed until it is negatived—there must be a longitudinal stress in the stream of light, with a re-action on the source at one end and on the advancing wave-front at the other.

The source is always material, for light emanates only from a vibrating or rotating electron. But what happens at the other end, to accord with the customary experience that a line of stress always stretches from one piece of matter to the other? When the beam reaches the earth or the matter of a comet or any other form of matter there is difficulty for the reaction in normal fashion is exercised on the resisting body. But when the advanc-

ing end is still in free aether all that can sustain the reaction is the wave front itself travellig with the speed of light. According to Sir Oliver Lodge, therefore, the wave front has one of the properties of matter ; it has the power of sustaining stress. The beam consists of associated electric and magnetic " vectors " (quantities with direction, length and sense), the electron consists of motions characteristically rotatory. These two kinds of motion may not be entirely distinct. The former must advance ; the latter stays still in space. But they may be usually connected. It is known that the electron generates light ; Sir Oliver Lodge suggests that light may generate an electron.

Radiation has certainly many effects on matter. It can produce the irregular movements known as heat. It can stimulate chemical change, as in photography. More recently it has been found to be capable of throwing out an electron from matter with an amount of energy that seems to depend on the quality and not on the quantity—that is to say on the wave length of the radiation and not on its intensity. Sir William Bragg has called attention to an apparent interchange between radiation and matter which is suggestive. The impact of a beta-particle (a definite piece of matter) emits X-rays; but the impact of X-rays similarly emits a beta-particle. The energy of the beta-particle and that of the one liberated, or called into existence by the X-rays, are practically identical. It seems as if the same beta-particle or electron had gone out of existence when it generated the X-rays and had been re-created in another place, the link through space being a radiation of indefinite wave-length travelling with the speed of light.

MOHAMMAD'S CONDITION DURING REVELATION.

WHAT WAS GABRIEL ?

Who was Gabriel, spoken of by Mohammad as an angel who prompted all

his revelations ? Many conjectures have till now been hazarded. S. Khuda Bakhsh, writing to the Calcutta Review, so repudiates them :—

Certain it is that the attacks with which Mohammed suffered were not of the nature of epilepsy (*Cf. Muller, Der Islam*, p. 56, note 1). It is also very much to be doubted whether he had these attacks before his prophetic mission. I cannot accept Sprenger's assertion that Mohammed was hysterical. The picture of the Prophet, such as we know it, with his more than twenty years of unresting activity, is certainly not a picture which corresponds to that of one suffering from neurasthenia.

We find in him that sober understanding which distinguished his fellow-tribesmen : dignity, tact and equilibrium ; qualities which are seldom found in people of morbid constitution : self-control in no small degree. Circumstances changed him from a Prophet to a Legislator and a Ruler ; but for himself he sought nothing beyond the acknowledgement that he was Allah's Apostle, since this acknowledgement includes the whole of Islam. He was excitable, like every true Arab, and in the spiritual struggle which preceded his call this quality was stimulated to an extent that alarmed even himself ; but that does not make him a visionary. He defends himself by the most solemn asseveration, against the charge that what he had seen was an illusion of the senses. Why should we not believe him ?

The process by which Mohammad received his first revelation is thus described :—

How did this Call present itself ? Tabari, 1, 1153, has the following tradition. Abu Kuraib has related to us that Waki has said on the authority of Ali Ibn-ul-Mubarik, on the authority of Yahya Ibn Abi Kathir, who said : I asked Abu Salama as to the first that was revealed of the Qur'an. He said : the first that was revealed was " O, thou Enwrapped One " (Sura 74). I said : People say, however, that the first words revealed

were : Read in the name of thy Lord who has created thee (Sura 96). He replied : I asked Jabir Ibn Abdullah who said : I shall only relate to thee what the messenger of God has related to us. I had retired, said the Prophet, for devotion, to Hira, and when I had finished, I came down, and lo ! I heard a voice. I looked to the right and I saw nothing, I looked to the left and I saw nothing. I, looked ahead and I saw nothing. I looked backward and I saw nothing—then I lifted my head and I saw something. Then I came to Khadija and said : Wrap me up and pour water upon me. She covered me up and poured cold water upon me. Then was revealed—O thou enwrapped in thy mantle. (See note 3 to p. 3 of Rodwell's translation of the Qur'an.)

The 'something' which Mohamed saw, is described in another tradition, which is also to be found in Ibn Ishaq, and which, adorned and embellished as it is with other legends, yet retains the main outline of original tradition. I borrow from it the following words put into the mouth of the Prophet : I came rushing down, out of a rock, with the determination of putting an end to my life and thereby securing peace at last. But when I was about midway I heard a voice from heaven saying, O Mohamed ! thou art the messenger of God, and I am Gabriel. I raised my head towards heaven, and I saw Gabriel in the form of a man (at prayer) He said ; O Mohamed ! thou art the Prophet of God, and I am Gabriel. I remained standing looking at him—altogether forgetting what I had resolved upon, and moved neither backward nor forward.

I began to turn my face in various directions, and indeed to whichever side I turned I saw him. Neither advancing nor retreating, I stood fixed to the ground until Khadija sent out her messenger to look for me, and the messenger came to Mekka and returned home, while I stood rooted to the spot. Then he (Gabriel) disappeared, and I returned home to my family (at the foot of Hira).

The doubt that the mental state of the prophet, as described above, was not a sound one was, entertained and expressed when an announcement of his apostleship was first made by himself. The prophet had to produce incontrovertible evidence to prove that his senses were sound during revelation, that evidence being no other than a statement on oath by God the pseudo-author of the Quran. Says S. Khudha Bakhsh :—

Two passages in the Qur'an prove that this account rests in the main on truth. Sura 81, Verses 15 et sqq. : "And I swear by the stars of retrograde motion, which move swiftly and hide themselves away, and by the night when it cometh darkening on, and by the dawn when it clears away the darkness by its breath, that verily this is the word of an illustrious Messenger, Powerful with the Lord of the throne, of established rank, obeyed by angels, faithful also to his trust, your compatriot is not one possessed by Jinn ; for he saw him in the clear horizon : nor doth he keep back heaven's secrets, nor doth he teach the doctrine of a cursed Satan."

And Sura 53, Verses 1 et sqq. : "By the stars when they set, your compatriot erreth not, nor doth he go astray, neither speaketh he from mere impulse. Verily the Qur'an is no other than a revelation revealed to him : One terrible in power taught it him, endued with understanding. With even balance stood he, and he was in the highest point of the horizon : then came he nearer and approached closely, and was at the distance of two bows, or even closer,—and he revealed to his servant what he revealed —His heart falsified not what he saw : will ye then dispute with him as to what he saw ?"

Is there still any room for doubt that the Quran is a revelation from God and not the ravings of a mad Mohammad ?

What, after all, was this Gabriel ?
Says S. Khuda Bakhsh :—

In reviewing Dr. V. Hautz's. "Muhammeds Lehre conder offenbarung quelle-nmaszig untersucht" in *theologisch tijdschrift* 1899, I wrote : "Dr. Pautz and many with him have looked upon this phenomenon as an hallucination. But the simple, straightforward manner in which this event is related in the Quran and in the tradition alike throw a great deal of doubt upon the correctness of the view set forth by Dr. Pautz. I hazarded an opinion long ago that Mohamed saw a hazy shadow of his own self, similar to the phantom seen on the 'Brocken.' If the observer finds himself between the low-standing sun and a bank of clouds he sometimes finds his own shadow projected upon the latter enormously enlarged and generally surrounded by a coloured circle which we call an aureole or a halo of glory.' It appears that Mohamed noticed this apparition early in the evening—a fact which would explain the anxiety of Khadija. It would also explain how the man who was timid by nature and who only slowly and gradually became conscious of his mission, and who was wellnigh on the point of despair as to how he was to fulfil his destiny—how, such a man, suddenly stepped courageously forward, strengthened and fixed in his innermost conviction that the voice which urged him onward to announce, with becoming dignity, the revelation of God, was the voice which came from above."

A colleague of mine to whom I had sent a copy of this article wrote to me ; "There is much to say in favour of your explanation of Mohamed's hallucination and it appears to me to be a very good account of the various versions of the story. If I still entertain any doubt it is to be ascribed to the fact that your argument fails in one important element ; namely, in the proof that such phenomena, as are observed in the misty Brocken have been observed in the sunny neighbourhood of Mekka. Perhaps such is the case in the 'land of mirage,' My doubt is due, to a certain extent, to my want of knowledge."

I regret I am unable to supply the desired element. As for the "phantom

seen on the Brocken" (*Brokengespens*) I find the following in Badeker :—

When the rising or setting sun stands at the same altitude as the Brocken, and on the opposite side down in the valleys mists gather which rise along the Brocken, whilst the Brocken itself, free from the mists, stands between the mists and the sun, the sun will throw the shadow of the Brocken, with all that may happen to be on it, on this bank of mist, on which gigantic figures are formed which soon grow smaller and smaller as the mist comes nearer or recedes further and further. The phantom is rare, and it occurs about once every month.

In the description of the hazy figure in the qur'an we find the nearest approach to the phenomenon just described. Probably this phenomenon is of extremely rare occurrence at Hira. It may also have taken place in the morning, which would better fit in with the story, according to which Mohammad saw it while wandering about in the hills after a dream that had frightened him overnight,

Mohamed could have had no idea of such optical illusion. For him what he saw was a divine phenomenon which announced to him what he had already in his heart: he was the messenger of God to his people. In great excitement he returned home. Wrap me up ! wrap me up ! he called out to Khadija and then he had one of those overpowering nervous fits with which he was henceforward attacked each time that he was supposed to have heard the voice of God in the heart. Unconscious, in this condition, he never was. The fits were the outward manifestations of inward mental struggle antecedent to spiritual revelation. No sooner was the struggle over than he recovered himself and uttered the revelation, The first revelation in all probability is Sura 74 : O thou enwrapped in thy mantle ! Arise and warn ! And thy Lord—magnify him ! And thy raiment—purify it ! And the Abomination—flee it ! And bestow not favours that thou mayest receive again with increase ; and for thy Lord wait thou patiently.

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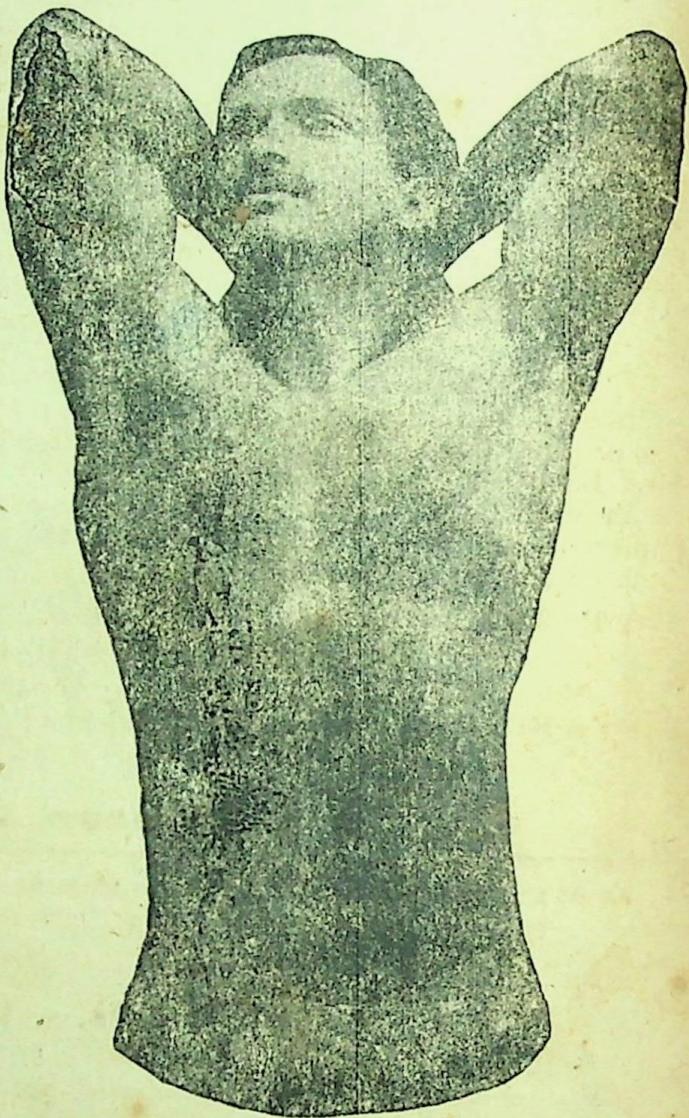
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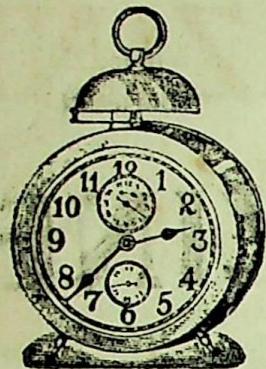
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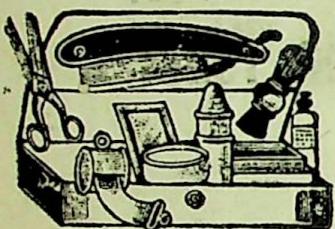


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STUDY OF MECHANICS FROM INDIAN ENGINEERING BOOKS.

(BY RAO SAHIB K. V. VAZE I. C. E.)

SECTION III.

वायुयंत्र MECHANICS OF THE WIND.

वायुस्तुदेवतावायोरगस्त्यश्चमृषिः स्मृतः ।

प्रभावात्पसः सोऽपि मैत्रावरुणिरुच्यते ॥

यंत्रार्णव.

The Deity of वायुतत्व is वायु and अगस्त्य is its propounder. The sage अगस्त्य excelled or defeated आतापि sails and वातापि kites by his balloons. When अगस्त्य lived, there was a sweet water sea between the हिमालय and विध्य, and into this all the Himalayan rivers flowed. Sage अगस्त्य invented the electric battery कुम and used it for

many purposes. Positive electricity he called मित्र and negative electricity वरुण. Owing to the extensive use of कुम and मित्रावरुणौ, the sage अगस्त्य used to be called कुमोद्धन or मैत्रावरुण. By his Baloon he flew over the fresh water sea to विध्य. In Indian Engineering वारुणि means a Hydraulic Engineer and मैत्रावरुणि means Electric Engineering. On coming to विध्य the sage अगस्त्य found that the विध्य was not so high as to obstruct the path of the sun,

that there lived another civilized race of men there, and that he lived on the Deccan plateau and helped राम in conquering राज्य.

वायुतरंत्र or the element of Wind is more uncontrollable अदात्म्य than water and hence in using it one has to take some special precautions such as are noted below :—

(1) Water flows along the surface of the earth and hence it can be stopped or controlled by stone walls and can be made to flow into particular sorts of channels with particular velocity ; but wind sours very high and in order to use it one has to erect high towers.

(2) The direction of wind is not steady ; it may change at any time and hence the contrivance for using wind-power must be able to revolve or rotate in any direction to meet the wind.

(3) The velocity of wind is also very variable and sometimes it may be so low that it would not work even the lightest machine or contrivance. The work to be obtained from wind has therefore to be reserved, to be got done at the time, when it is blowing. Consequently before wind-power can be used, the velocity, direction, time etc. of the wind has to be observed all the year round and the mean of these observations has to be used in dealing with it.

In modern Engineering air is compressed by means of steam or electric machines and is conveyed through pipes to work drills &c., but in Ancient India this was not done and hence wind was considered to be a very intractable element. With all its defects there is one advantage with the wind, and this consideration encourages men to use it. This advantage is that wind is spread over an enormously extensive area and it is never exhausted. Water gets exhausted after it has done its work. Once a quantity of water falls down, it can work no further, once steam gets off it is lost but wind can work a series of wind mills one behind the other ; the series of wind mills may be extensive and continuous and yet it will work them all simultaneously. Thus wind power is very cheap and very convenient, where its direction and velocity is fairly steady all the year round, for example on the top of Western India or Konkan or on the sea-coast.

For being able to make use of wind-power on an extensive scale, we ought to know the following details :—

(1) The weight of the atmosphere. For ascertaining this we have Barometer and the idea of this contrivance begins from the use of the धारायंत्र. The conditions of the atmosphere at various heights and in various localities ought to be ascertained and noted. Our तीर्थ, क्षेत्र areas are areas of particular kinds of water or air, and ancient Indians went to काशी, प्रयाग, बद्री or महेन्द्र, as Englishmen go to Simla, or Darjeeling for getting British climate.

(2) The direction of wind in any place and at any season ought to be ascertained and noted in Geographical statements. There should be धर्जन indicators showing the direction of wind on all high towers etc.

(3) The force or velocity of wind should be observed all the year round in District towns and this information should be available to the public at a nominal charge.

(4) The resistance of wind i.e., the resistance wind offers to things passing across it is worth observing. This will be useful not only for wind mills but also for balloons and sails. In Indian Engineering there is a chapter on शूलिनिरोध or the obstruction of dust. This chapter deals with the prevention of the flow of dust into houses and may be useful for the prevention of the entrance of smoke in industrial or mill-towns like Bombay.

(5) Simultaneous observations of the state of wind at different heights in the same locality.

These observations, when taken and tabulated, will form वायुशास्त्र and will be useful in wind installations. India is not suited for steam machinery but it has a very large scope for water or wind machinery, and these must be systematically developed if India wants to be recognised as a self-supporting nation. India's animal and vegetable resources developed, with water and wind power would work marvels and can easily compete with the contrivances the West,

तंत्रः

Just as the तन्त्र of पृथग् is its weight and animals, just as the तन्त्र of जल is its flow and fish, so the तन्त्र of वायु is its velocity चेग and birds. The velocity of wind is used in propelling boats by means of sails. As water-flow carries things floating on it, so wind-flow carries sails etc. with it.

पवमानसोमाभ्यां नीता नौः। नौका शास्त्र

नौ is defined to be a boat that is propelled by the flow of water and wind, and a boat that is propelled by oars worked by hands or power is called नौका.

देवदानव संत्रामे शत्रुभिः परिपीडितान् ।

समुद्रेया गृहं भूता(सानौका)दानवानां सुखप्रदा ॥
अरेक्षायतियतिक्षत्पं अरित्रं तत्ततः स्पृतप् ॥

नौका शास्त्र

नौका Boat was the refuge of the defeated दानव when they fled into the sea, and the oars were the things that saved them and are thus called अरित्र, the saviors from the enemies.

As water is used for sifting corns etc. so is the wind. Water is the enemy of fire but wind is its friend; the one extinguishes it while the other increases its blaze. As water is useful in mining operations, in removing and separating earthy particles from the metallic particles, so is wind useful in burning them off and freeing metals from their impurities. As by means of weight (specific gravity) water discloses

the adulteration in metals, so fire by the melting point and colour of the heated pieces discloses adulterations.

As beasts are useful for drawing carts, and ploughs etc., so birds are used in conveying post or dragging balloons. The balloons of अगस्त्य were floated in the sky by bags filled with light gases (Hydrogen) and then these were dragged in the required direction by birds yoked to them.

गरुदद्वाहसैः कंकालैरन्यैः पक्षिगणैरपि ।

आकाशोवाहयेद्यानं विमानमिति संश्लितं ॥

विमान शास्त्र

There is a separate treatise on training of birds शकुनत्विद्या and a great bagful of hydrogen is called उर्वशी अप्सरस् (उर्वशी, very extensive अप्सरस् waterproof, through which water or gases would not escape).

In रामायण we find that राम conquered रावण because he obtained the training under three great sages viz., वशिष्ठ the great Hydraulic Engineer, विश्वामित्र the great Engineer in canonry धनुर्विद्या and अगस्त्य the great Electrician and balloonist. At last राम threw away the balloon as it was found to be more a machine of destruction than anything else. There are signs in Western civilization also showing that the Balloons and other such modern inventions are more useful as destructive agencies than anything else,

When the air in any place is heated, it becomes lighter and rises up, the surrounding air rushes to fill the vacant place produced by this action and gives rise to wind. The fireplaces that are built at a higher level get advantage of the winds for blast. This hot air is conveyed through a chimney to a height at which it would be a little hotter than the surrounding air, and where there would be wind blowing all the year round. A fireplace with the chimney &c. has already been described in the वास्तु शास्त्र under "Amenities."

As water lifts up things thrown into it, so does wind, but the weight of that mass of air is so little that the upward lift is generally negligible. If a lamp is lighted under a spread or extended umbrella, the air under it gets heated and lifts up the umbrella ; lanterns &c. are thus floated in the sky but is contrivance is not useful for floating any heavy articles. It was expected that balloons would be constructed in this way, and when अगस्त्य was able to analyse water into Hydrogen उदान and Oxygen प्राण he was able to construct विमान Balloon that could float for any length of time at a moderate height. Full details of the construction of these balloons will be described under विमानशास्त्र, and for describing the तंत्र power of वायु the above details are enough.

In the Atmosphere there are seven chief gases and there are seven combinations of each, thus there are forty-nine मरुतः kinds of gases known to Indian Engineers. These gases first emanated from the earth दिति but being transparent and invisible have been classed as आदितेय celestial beings under the generic name of मरुतः. दिति means earth and अदिति means the world beyond it. Thus in Engineering, terrestrial rocks, metals &c. are called दितिज or भौम. And nebular or meteoric stones or metals are called अदितिज or दिव्य. The gases first emanated from the earth and then were classed as nebular. When water is analysed by the electric current of a battery of hundred cells शतकुभ, the lightest (hydrogen) उदान वायु is evolved and this is filled in a bag to which a box or boat is attached by means of ropes. This is the balloon of अगस्त्य. And in this he travelled from the Himalayas to Lanka the land of राज्ञ. While thus travelling, अगस्त्य saw a volcano in Malva then under the sea and called this fire और्बानल the terrestrial fire and also noticed that gems were formed by the sudden cooling of the lava when it flowed into the cool water of the sea which is therefore called रत्नाकर or mine of gems. The balloon of

अगस्त्य was dragged through the air by birds specially trained for the purpose. यंत्र. It was noticed under the machines of water that the wheel or pulley was formed by the revolution of an elbow-shaped lever अग्रदंड round its pivot. In order to move such wheels, hands or feet are used, but if the periphery of these wheels be composed of projections which are technically called दंत teeth, a set of these may be moved simultaneously by moving one of them. There are two sorts of these toothed wheel combinations, viz. समदंत and पुरमेददंत. समदंत wheels are wheels moving in one plane or in parallel planes ; पुरमेददंत are wheels moving in planes at an angle, generally a right angle. Toothed wheels may be combined or joined by means of chains as ordinary wheels or pulleys are joined by ropes or straps. These chains are better than straps, as they do not slip or slide ; if the strain be too great, a tooth may give way or break.

When wheels joined by straps are intended to move at one time and stop at another, while one is always moving, it is usual to set a movable as well as a fixed wheel on one axle, and the strap is moved either on the fixed or on the movable wheel, according as it is intended that the axle should move or stop. A

chain working on a toothed wheel cannot be slipped in this way, and for this purpose the toothed wheel itself is slid on the axle. The axle has a projection fitting into a cut on the inside of the wheel ; when the projection is set into the slit, the wheel and axle move together and when the projection is out of the slit, the wheel turns round on the axle which does not move.

The wheels of a clock are generally समद्वंत but those of mortar mill, are water wheels worked by a bullock &c. Toothed wheels of various sizes may be fixed on one axle to give more or less velocity and outturn, and thus there may be दंत संघात as there is चक्रसंघात. Such चक्रसंघात is seen in the machinery of a clock.

A saw is a toothed wheel used with पृष्ठजी. It is called अक्षचयंत्र and may be straight, bent or circular to suit the mode of application and the work to be done.

The construction of a wind mill is similar to that of a मर्थनयंत्र, where the water flowing out of orifices or pipes on a wheel sets the wheel in motion. Compressed air may be similarly let out and made to move the head which may work a drill for making holes in wood, stone or metal. The rotating wheel is made to go up and drop down a screw, and thus holes for blasting are drilled in rock by this contrivance.

Every one has seen the revolving wheels of paper set on a stick sold in the toy shops. A piece of paper is

folded to form leaves of a flower, and as wind strikes these leaves, they rotate on the pivot in the center. This is the construction of a wind mill seen in Thana District and other places for working water pumps. In order that the wheel should always face the blowing wind, it has a tail fixed at right angles to the wheel. As soon as the wind changes direction, it strikes on the tail which moves, so that its plaine may be in the plaine of the wind, and the wheel thus always faces the wind and rotates. The axle of the wheel is bent into the shape V and as the wheel rotates the V goes up and down and works the pump or any other machinery set on it. These wind mills are called अप्रयंत्र in old literature and were much used for cutting wood or grinding corn in the Himalayas.

मंत्र

The principal feature of वायुमंत्र is स्तंभन or stoppage or obstruction. The modern steam or oil engines may be classed as वायुमंत्र as there is confinement of the gases. Some oil engines may be classed as तेजोमंत्र as the heat of the combustion of the oil produces the force that sets the machine at work. These engines, or something similar to them, were unknown in Ancient India. In Ancient India Hotblast अग्नामरुतः was used only as a reducing agent in metallurgical operations, अग्नी-शोमौ. Hot liquid was used only in sugar refineries ; but the use of hot steam or superheated gases as motion power was never made in Ancient India.

SECTION IV तेजोयंत्रः

MECHANICS OF HEAT AND LIGHT.

तेजसोदेवतास्यर्थे विश्वामित्रश्चतद्विषिः।
स्वकीयतपसाक्षत्रोब्रह्मर्पित्वंसआपवान्॥
यंत्राणवः।

The Deity of heat and light is सूर्य

the sun and विश्वामित्र is its sage. By his experiments on this element though a क्षत्रिय he obtained the title of ब्रह्मविद् a sage versed in experiments. Sage विश्वामित्र used the results of his experiments in Heat and light in his धनुविद्या Canonry, and the results he arrived at are as noted below :—

(1.) The rays of heat or light go in straight lines, but they bend slightly on passing from thick to thin substances and vice versa. This is due to the change in the resistance which the rays meet with in the changed substances.

(2) Rays on striking an impervious substance rebound like a ball and this incessant striking of rays causes heat in the substance on which they strike.

(3.) Though the rays are extremely uncontrollable, they can be controlled and concentrated by means of inclined planes.

(4) When the rays of the sun are analysed by the inclined plane, they are divided into seven colors. The hottest of these are red and the heat decreases as we go towards the blue. This means that the red rays strike with greater force than the blue ones.

(5.) The power of the eye is limited and there are rays both beyond the red and blue. When God created the world there was darkness, that means that the rays at the time were of a very low intensity and therefore had no light or colour but as concentration went on, the light became apparent.

(6.) Some authors say that the creation was from ब्रह्म to आकाश, वायु, तेज, जल and पृथ्वी as they misunderstand the non-visible तेज to be वायु. Really it is not so. The creation is in the order ब्रह्म, आकाश, तेज, वायु, जल and पृथ्वी. The creation began with the advent of Gravitation and things were created by concentration.

(7.) The birth of मरुतः is the real वायुतत्व and three व्याहृति viz भूः, भुवः and स्वः denote the three spheres constituting the world. भूः is composed of अग्नि hot mass with the envelop of solid crust पृथ्वी. भुवः is composed of gases वायु with the envelop of अंतरीक्ष astral transparency, स्वः is composed of the solar systems enveloped in space.

तंत्र

The तंत्र of तेज is the eye. There are three sorts of eyes as under :—

(1.) Eyes that see only the lower rays, such as eyes of the owl, bat etc. These are able to see only in dim lights and the less the light the better they can see.

(2.) Eyes that see only the bright or strong light. The eyes of man and ordinary beasts are of this sort. These can see only in a certain strength of light.

(3). Eyes that can see in both. The eyes of cats, lions and, tigers can see both in the higher and lower shades.

Light can be used as an agent for speech or signalling by means of flashes of reflected light.

यंत्र

The यंत्र of तेज is सरणि an inclined plane and the idea of the inclined plane starts with the art of climbing straight trees like the palm. When a man wants to climb a palm, he holds it firmly in his embrace and lifts up his feet. He then embraces it in his feet and lifts up the hands. Thus by leaps he rises. Then instead of leaps he uses rope ladders called निसरणि and then an inclined plane is used for raising up and this is the सरणि.

The सरणि is used for lifting big stones to high places in building construction. Our carts owned by Vadars are examples of the oldest सरणि. The stones of large temples are raised to the top in this way by the inclined plane and rope.

The moat or the leather bag is used for drawing water from a well on this principle only. A pair of bullocks walks along the inclined plane and drags up the bag full of water.

Inclined planes are used with the earth in wedges, axes, and other tools.

मंत्र

Lenses are the मंत्र of तेज and their principle is जारण or एकीकरण concentration. Two sorts of lenses are used in practice, viz., सोमकांत concave lenses and सूर्यकांत the convex lenses. These are used for concentrating rays and producing fire and for optical instruments. The सरणि was used for seeing the objects on the earth from the balloon, and this contrivance was used as shown in the sketch.

A triangular piece of स्फटिक or prism of glass had its inclined side coated or covered with silver and it had two tubes नलिका on the two sides. The man sitting in the balloon peeped into one tube and saw the things on the earth through the other. These instruments were used for seeing things at the back. The modern Camera Lucida is an instance of the same.

The सूर्यकांत lenses and सोमकांत reflectors were used in concentrating rays and producing fire at a desired point and thus used in destroying the enemies at a distance.

Deceiving one by false appearance is called माया. This माया is of two sorts viz. steady स्थिर and movable चंचल. By the magic lantern one produces स्थिर माया and what is called cinema is चंचल माया. The माया produced by रात्रण शंवर and others may be similar to this but the details of the construc-

tion bare not available. By means of statues and images also one produces माया, but that art is not called माया as it does not completely deceive any body. An image is seen to be false when the appearance is tested by the use of some other organ but the real माया is such that as you try to touch it it flies further like mirage सूरज. False appearances are thus to be classed into चित्र statue, आभास picture, and माया deception. The existing world is also a deception but it is दैवी माया eternal deception and we can never get beyond it.

SECTION V.

आकाश यन्त्रे MECHANICS OF THE ETHER
 आकाशदेवतामित्रोभरद्वाजस्तुतद्विषः ।
 दुष्करेणास्य तपसासौं इतर्ज्ञानमाप्नवान् ॥
 गुणातीतं चयत्सर्वं महदाकाशउच्यते ।
 पतंजलिर्योगयुक्त्विकालज्ञानमाप्नवान् ॥
 यन्त्राणं च ०

The element आकाश is divisible into two parts viz. स्थलाकाश ether or space and महदाकाश time. When one gets control over आकाश one annihilates both time and space. Spread of the knowledge of the wireless is annihilating space. Sage भरद्वाज had made research in this branch of electrical manifestation but I have not been able to get a text of the same. The text is called यंत्रसर्वस्व. The sage

पतंजलि by his योग had control over time and was called त्रिकालज्ञ. योगसूत्र of पतंजलि is available and requires to be carefully acted upon.

The spiritualistic societies of Europe and America are after this study and one day we may hear more about the truth of the writings and results of पतंजलि. Annihilation of space and time is the fruit of every civilization, and as soon as this is obtained, the civilization comes to an end. The पुराणप्रथ of India tell this and the truth is attested to by reason. The world is composed of egoistic beings and any invention is always used for the destruction of others. As soon as two such conflicting parties meet they naturally kill each other and leave the world a blank. The more subtle the methods of destruction are, the more quick and effective they become. The two contending parties may send missiles—destructive missiles from opposite ends and may kill each other unawares.

तंत्र

Thought and the realisation of the object thought of is the तंत्र of आकाश element. You think and concentrate on Time or Space and you realise them.

यंत्र

भ्रम or screw is the यंत्र of आकाश element. When an inclined plane is rolled round one of its sides, it forms a screw. The action of the screw is similar to that of an inclined plane but it occupies less space and is more handy. Screws or भ्रम are of two sorts, viz., the संहार or दक्षिण right-handed

screw and विस्तार or वाम left-handed screw. The strength of the screw depends upon (1) the thickness of the thread and (2) the pitch or the verticle distance between the two threads. In the bazar screws are sold by numbers which denote the number of threads in its length. Screw is used for joining together two things. Every screw requires two parts which are called पुरुष or bolt and स्त्री or nut and the piece of metal etc. that is put between the two is आच्छादन or washer.

मित्र.

The present day electrical machines are all आकृशमित्र. Sage भरद्वाज has divided electricity into the following classes :—

(1.) The electricity that is produced by lashing silk cloth, or the skin of a cat or fox is called तड़िन, i.e., electricity produced by lashing. This electricity is used in the brushes made of the feathers of a peacock etc. and is used in mesmerising and healing skin diseases.

(2.) The electricity that is produced by rubbing gems, glass, etc. is called सौदामिनी or the electricity of necklaces. Different gems produce different variety of this and each variety has its peculiar effects.

(3.) The electricity produced by the particles of water while coagulating in the air is called विद्युत्. The sprinkling of water on the body or face,

shower-bath or rain-baths produces this electricity and is very useful in curing nervous diseases.

(4.) Electricity that is produced in a battery by chemical action of different substances is called कुमोद्धवा. The positive electricity or that in which metals are deposited is called मित्र and the negative electricity or that in which acids are deposited is called वरुण and the whole current is called मित्रवरुणी. The pot used for this battery is घृताची, a pot used for storing Ghee and it must be अप्सरस् or water-proof. As hundreds of cells are required to be used in this battery ; this electricity is called शतकोटी or शतकुंभी.

(5.) When a magneto revolves round its axis, it produces a current in the copper wire wound round it and the electricity thus produced is called अशनि. This electricity is used in all mechanical and commercial operations.

(6.) The electricity stored in a storage battery is called हादिनी and the pot in which it is stored is called a हृद.

(7.) Electric spark is called स्फूर्जयः and the lightning flash is called मेवज्योति.

THE SEARCH AFTER ATMA.

(By PROF. RALLIA RAM KASHYAP.)

ओ३म् य आत्मा अपहतपाप्मा विजरो
विमृत्युर्विशोकोऽविजितिसोऽग्निपासः सत्य-
कामः सत्यसङ्कल्पः सोऽन्वेष्यः स विजित्वा सि-
त्यः स आप्नोति हवै सर्वान्कामान् सर्वानश्च
लोकान् यत्तमाऽऽत्मानमनुविद्य विजानाति।

1. Om is the Indestructible Supporter (*Prajapati*) of all. He is the Greatest amongst the great. Pervading every animate and inanimate object He succeeds in protecting them all. Ever the same, He is an embodiment of existence, consciousness and bliss. Souls forgetting themselves in Him commence to act as He and succeed in that act even. But unfortunate fools neglecting Him who is in them, heeding not the note He sounds in their hearts, keep ever in misery, barred from the pleasure He alone could give them.

2. He is the Subtlest amongst the subtle. Even a soul, which can reside within an ant, is permeated with Him. Thus it is that He rules all from within and without.

3. Who indulges in sins? Anyone who requires something which he has not got; to secure that he sins, if he can not secure it without committing sins. God is present in everything. Consequently everything is already in His reach. That is why He never sins; that is why He is called "Apahat-papma" by the great Prajapati in his declaration made in the Brihadaranyak Upnishad.

4. Who grows old? Who changes with time? Any one who is composed of a number of components, because components unite or separate with the lapse of time. That Sinless "Atma" is one, homogenous throughout. He is the simplest of all. No particles compound together to bring him into existence. That is why he undergoes no change with the lapse of time. This is the reason that makes Prajapati declare him as 'Vijarah.'

5. What is death? It is nothing but the separation of the various particles composing a compound from each other as well as from the one soul, the presence of which served to keep them together. God is continuous throughout them all and is present in that soul even. Being immaterial He can not contract or expand; consequently He can not pick up new particles and give up old ones; nor can he separate Himself from any soul. Particles of matter or souls can never separate themselves from Him. Thus God is always in everything; having always the same connection with matter; in Him no separation can ever occur. Souls and matter which are unto him, as a body (human or otherwise) is for a soul, can never separate from him. Knowing and seeing all this the Sage Prajapati called Him Vimrityu.

6. What is sorrow? Sorrow is an unpleasant sense of uneasiness in a mind enlivened by a soul, felt on losing some-

thing or after having done an unwise deed. The Supreme Soul, God, being All-pervading, as stated before, can never lose anything, nor, being always Omniscient and a conscious independent worker, can He ever commit an unwise deed, for which He may have to repent afterwards. Thus both the bases for sorrow being ever absent in His case, He is termed "Vishokah".

7. Hunger is a sense of emptiness in the stomach caused by the complete digestion of the food taken previously, and resulting in the creation of a desire for taking fresh food in, due to the stimulation of the nerves of the inner wall of the stomach by its secretion, which in the presence of the food there, was serving to digest the same. Now all these phenomena viz. the taking of food, digestion, hunger, desire for fresh food etc. occur in a living body, i.e. a body which is material in itself but has a soul as its resident. These phenomena occur because a living body is constantly undergoing decay and repair due to a constant series of performances going on in it. viz respiration, blood circulation etc. Now God has got no living body, hence no stomach and no lungs; as a result no digestion, no respiration nor therefore any blood circulation. That is why He never loses or gains anything, hence He has no desire for taking food. Hence he is called "Vijightsah". Similarly when water previously drunk has been properly utilised in the body, (in the moistening of its various

parts, which on account of respiration etc. are being constantly dried by heat liberated in them during the course of these processes,) a sensation of dryness is felt in the tongue and the throat owing to the insufficiency of the amount of water present in them. This sensation creates a desire in us for drinking water, which is termed "Thirst." It is obvious as in the case of hunger, that it is a phenomenon met with only in a living body and due to physical change going on in it, the latter being composed of a number of material particles which can separate or unite. God has no such body. Consequently He is beyond that effect of heat or water. As such He is free from Thirst also. Therefore He is called "Apipasah."

8. All His ideas and thoughts always prove true. Never an unclean or untrue idea can exist in Him because He is always pure and ever Omniscient. He is independent, hence nobody can influence Him to do wrong. For all these and many more reasons is He praised as "Satyakama and Sataya sankalpa."

9. He should be searched into. All should wish to know Him; because knowing Him as pervading in all objects of creation, feeling Him to be their creator, and seeing Him as clearly separate from these all, one attains to the fulfilment of all desires and reaches the greatest heights he can wish to fly to. Nothing then remains which he can not enjoy.

AT THE GATE OF EDEN.

It was some Persian poet, or more properly a poet of Persian, who styled Kashmir as the Eden on Earth. And yet a visitor, who went to Srinagar last year, exclaimed, it was hell—the very reverse of Eden. The poor fellow had gone by the Rawalpindi route and taken for his conveyance a Lorry—that devil's contrivance for bridging distance with dust and stench. The other much-frequented route, viz., that from Jammu, has, of late, been opened, too, to Lorry traffic, so that now all passages, leading to Eden, excepting one, which tourists on foot may yet avail of, to their infinite enjoyment and exhilaration, viz., that from Gujrat, bid fair to become passages through hell. The tour, however, on the experiences of which we base our short picture of our short journey, for the amusement, or, if it should perchance cause some, aesthetic gratification, of our reader, belongs to pre-motor times. For times that are following, this may prove a valuable record, a piece of history, to be of use in future ages which as we picture them to ourselves, will be lorry-laden—stench-stuffed and dust-encumbered.

Let us begin our description with Kudd. This is a village,—some seventy miles from Jammu, a retired place where the bustle of the busy world will not disturb you. The modern road to Kashmir has followed the lead of its ancient sister, and except in places where ravages of time are quite irreparable, has gone in close companionship with it. On one side of it there rise high mountains, clad

from head to foot with verdure. On the other there runs a murmuring stream. You have to descend a good deal to reach its brown, dusty water. Rivers have, in ancient, as in modern, times, been the unfailing guides of men in striking out routes. Sometimes you meet with rills running headlong down the summits to your left, to join their scanty, and presumably on that account impatient, waters with the waters of the main stream. These cross your road, and at places, in their hurried, headstrong haste, pull down your bridge and all, and delay your equestrian journey by a day or two. You are more fortunate, if at such a juncture, you have only a light kit, which added to the weight of your body, may not be a burden too heavy for your own and, if need be, also a coolie's legs.

Coolie, mind me, is a problem on this route. Prevalent in the whole state is a system of *begar*. State officials force the services of a labourer and pay him according to their own scale. You will find none ready to hire himself for a willing wage. This may give you an insight into the absolutely dependent mentality of the resourceless inhabitant of those parts.

Fields grow on terraces and yield a meagre harvest, whereby in the midst of barren luxuriance, the poor peasant of the mountain drags on the burden of a toilsome existence. Small girls, and even grown-up women, may be seen here and there pasturing their cattle. Both sexes contribute their

share towards the earning of a scanty livelihood. Mountain morality, they say, is lax—a sad tale of un-guarded, though in these parts, unavoidable, liberty among the sexes.

From Kudd you start early in the morning for Batot. While in this part of the journey, make a point of leaving the public road. Besides being lengthy and tiresome, it is plain and prosaic. The footpath that scales a mountain cuts the journey short by several miles. If in the way it rains, the ascent affords the pleasures of an adventure. Beyond a certain distance you find vegetation fails you. A sort of black rock crowns the hill, where human artifice has had to dig its own passage. A flight of steps excavated by the hands of man is your only resource for crossing that dizzy height. At the first step you stand between two distinct regions and if perchance the weather happens to be misty, you need no flight of imagination to separate the lower from the higher world. Stop at the top. In case it be a sunshiny day, you are most lucky, if the first rays of the sun have overtaken you in the way and you have escaped the double difficulty of ascending in the growing heat of the sun. You have passed through trees and risen above many of them. To your surprise, you will find cattle grazing at that bewildering height. They have scaled it from the other side, where both for man and animal, it is an ordinary walk, up or down.

Batot is one of the highest places on this route, and commands a charming scenery. A halt there is worth more than the toil you have undergone. The ascent was a very pleasant

travail. It will be the better requited by a day's glance round, for what more than a glance can a day afford in such a place?

Further in your journey there come Pira and other stations equally alluring. None, however, dare approach the unassuming beauty of Ramban. That is my place, a poet's place. The designing of the station, if such preliminaries were needed for the wonders even of the hands of Nature, was, presumably, done by a poet in his happiest mood of poesy. No sordid gains of applause seem to have obsessed his vision, while he was engaged in this ethereal, though to his own mind an earthly, task.

Which is Ramaban? The village this side of the Chenab, or the spring on the other side? A bridge of mixed wood and iron separates the two. The wail of the river has become more pathetically plaintive. It is resounded by the mountains on both sides. Pebbles join their voices audibly with the mournful tones of the torrent. The leaves of the trees seem to murmur too. As you go to bathe, the stream throws out its arms restlessly, and then as suddenly draws them back. What with the numbing coldness of water, what because of the unfathomed woe, half expressed, half concealed, under the uneasy jesticulation and mourning of the dusty current, you cannot carry on your bath for more than a few minutes. And then you are busy contemplating. As the poet has it, our sweetest songs are those that tell our saddest thoughts. Milton will call it melancholy but to me it is an extacy, a bliss.

At Ramban my shoes are torn, and I hasten to the house of a shoemaker. A poor fellow sits on the floor mending shoes with the simple primitive instruments of a village cobbler. What strikes me in his plain, small house is an almost overwhelming sense of religious cleanliness that seemed to surround the whole place with an exquisite charm. Was it cleanliness in fact or was it simply a delusion of my Arya Samajic sympathy that moulded itself into a concrete living picture.

Pass on, gentle reader, if a sight of woe pains you, or the lowly hut of a cobbler arouses in you? feeling proud disgust. The next stage is Ramsu. A Brahmin woman lodges, in the verandah of a shop, a host of travellers, who, for want of more comfortable quarters, squeeze themselves into the narrow space on that dusty floor. Bodily inconvenience extending over a night, buys, cheaply to all appearances, insight into itinerant human nature. Sadhus of almost all varieties and colours snatch from the courtsey of the dame their rest of a night. They smoke, blow strong gusts of darkened breath, tell interesting tales, join in altercations, and sometimes even quarrel. Every one, however, is in haste to proceed, and both friendships and animosities, contracted in the sojourn of a night, are forgotten with the dawn, when all assume their various ways.

Press your pace, gentle reader, to Banihal, with a buoyant hope to be in the Happy Valley next day. This is the last mountain barrier to Eden, which crossed, you will instantly be in the Region of Bliss.

Take care to forestall the heat of the sun in your ascent up this hill, too

The experiences of this mountain are more than a mere replica of those gained in the ascent after Kudd. The artificial staircase was the peculiarity of that former adventure; greater height accompanied by a sight, a mere sight, of snow lying on neighbouring hills, is a speciality here. The air is bracing. the atmosphere is calm and cool. At intervals there fall in your way the huts of cow-herds and buffalo-herds, living in forced retirement, deprived of the natural comforts of their pastoral mode of life, by the usurpation of shrewd, wealthy ease-lovers of cities, who draw for their necessities on the toil of these poor, plain people.

The descent from Banihal, along the footpath especially, which you will probably pursue, is abrupt. At places you have to run, to avoid the possibility of a false step, which over-cautiousness, as it slackens the pace, is liable to lead to. Some dangers are obviated by being overlooked—among such are those attending a steep and narrow descent.

Verinag opens the Valley. It is a perennial spring, flowing, flowing, welling out its huge volumes of water, since nobody knows when. A few slabs fixed into the walls round the Nag will tell you that the Emperor Jahangir was specially interested in the enjoyment and preservation of the beauties of this Nag. In dimensions the spring is a little lake. Its water is very clear and very cold. You can not stand it for more than a few seconds. Now whichever side you turn, you find a small brook of this water running over, and whispering its woe to, small pebbles. This, to let you into a secret, is the

beauty of Kashmir. There is water, water, everywhere. Besides affording, by themselves, a lively scene in every part of the principality, the little rills quicken growth, so that every little twig of a tree, that falls down on the earth, sprouts out into a new tree. Such is the belief of the vulgar about the fertility of the soil of Kashmir.

You have left the mountains behind you and are now walking in a plain. The roads are dusty and the temperature considerably higher than during your recent walks. You can stir out now only in the morning.

Some sixteen miles from Verinag there comes Anantnag. That, too, is a spring of the same variety as Verinag, but smaller in dimensions, and considerably less beautiful.

Hindu superstition has associated with these springs a feeling of religious sanctity, so that constant pilgrimage goes on to both these places and a lot of priests reside there. They will annoy you or serve you according as your religious inclinations are found favourable or repugnant to their predatory occupation. The pity of it is that these natural sanctuaries of Divine Artifice have, in the hands of religion, lost, instead of preserving, a great deal of their purity and charm. They induce no devout feeling, to find which you have to resort to less favoured spots, those that are on account of the inferiority of natural attractiveness, less plagued by misguided religion and superstition.

Choose at Anantnag your route further. If a pilgrim bound for

Amarnath, turn to Matton, a similar spring, similarly occupied, whence they will direct you to Pahlgam. A tourist, one who loves pleasure of scene simply, will find his thirst for natural beauty a good deal gratified at this place. One, however, that has gone in search of religious bliss should undergo greater toil, for pleasures of the soul are far more dearly bought than pleasures of sense. Beyond Pahlgam the route is uninhabited, and it requires the munificence of an orthodox raja to make yearly arrangements for the board and lodging, and what perhaps is more valuable, the safe conduct of a regular procession, consisting of thousands of pilgrims, starting and stopping at every stage together, as if at a bugle-call, obtaining all necessities from moving bazars and stores, which latter, too, are managed under the supervision of state officers. Even then you have hardships on the way. If rains ensue, they make your passage slippery. For a considerable part of the distance you have to walk over snow, and if by chance the ground under you fails, you are a lost pilgrim. A spring that falls in the way is said to be the habitation of a huge snake, or monster, with some five heads. No pilgrim verifies the tale; notwithstanding, the tale is current with all the plausibility, with which tales of that variety, invented by Dame Superstition are instinct. At the Cave of Amarnath, to visit which this whole toil and trouble is undergone, there is a small platform of snow which they say, is formed *within* the fortnight in which the pilgrimage falls. The platform is there, though *Shiva-linga*, the sacred

idol which, too, devout superstition seats on it, has never been witnessed for want, perhaps, of proper credulity in the observer.

The pilgrimage is a dangerous affair, and through parts of it they run, in order to escape the casualty of an avalanche of snow falling on them, which catastrophe sometimes takes place, drowning hundreds of lives.

From Anantnag to Sri Nagar is less than forty miles of either motor or ekka drive. If you like, you may first make a short trip to Ichhabal, a natural spring which the Maharaja has reserved for his own enjoyment and recreation. There you find no *pandas*, and no filth. Fishes of various descriptions are reared there, in a nursery, established for the purpose. The climate is invigorating, and the scenery around attractive.

On the road to Kashmir you will pass by the ruins of ancient temples of Budhistic design. If of an archaeological bent, you will find enough in them to rouse your melancholy sympathies with the art-loving illustrious dead. They may open to you a chapter from some long forgotten history of some never-to-be forgotten period.

Sri Nagar is the capital of Kashmir. One may expect it to be the heart of Eden. Climb up to the peak of Shankaracharya whence both the bright and dark sides of the picture will be open to you. On one side there stretches the city of Sri Nagar, a collection of dirty hovels, packed unwholesomely close together. The exterior of the Kashmiri which appears,

as it were, polished white, deceives you as to the character of his house and surroundings. The city, the street, the house, that he occupies are all nasty and disgusting. Here if anywhere is a pure gem nicely chiseled and beautifully cut, lying in the midst of a pond of dismal mud. The circuitous course of the Jhelum, however, which, too, falls on the same side of the mountain, you may enjoy. The curves of the bed are so regular that it has been surmised they are artificial. A veritable snake of water glides beside and through the town, considerably relieving its filthy prospect, and appearing on that account absolutely misplaced. On the other side of the mountain there lies the lake Dall of ancient fame, extending over an area covering miles. It lends a peculiar charm to the landscape around, which is spotless green. The water of the lake meets the horizon in the distance and seems, as it were, passing into the azure blue of the firmament.

Sail one day in a Shikara i.e. a small boat, and have the pleasure of a cruise round the Dall. At a distance of about three miles from where the Dall ends there is Harbin, a place where water is stored and conducted thence in tunnels to Sri Nagar. A huge lake extending into the sky will give you an idea, if such a finite thing as an idea were possible, of the watery infinite that enshrouds our earthly planet. In the way to Harbin excavations are proceeding into the ancient remains of what appear to be Budhistic temples

and which archaeologists trace to the time of Kanishka.

At the extremity of the Dall from which you, a short while ago, digressed to Harbin, there is the Shalamar garden. At an other spot on the brink of the same lake, there is Nishat. Both these were at one time the pleasure resorts of Mogul emperors. The former was meant for the enjoyment of the Imperial harem. It is walled on all sides and is more extensive than the latter which is open. Grass is laid out in both. Lines of flowers of various hues enclose plots of varied dimensions and multifarious beauty. The level of the ground rises as you cross one spacious tract of verdant grass after an other. In the middle of the garden, along its whole length, there is a line of lavatories whieh play every Sunday. There is perhaps more of art in Shalamar, but greater liberty has been allowed to nature in Nishat, to suit, as I think, the different grades of freedom which the two sexes, for whom the gardens were meant, enjoy under Islam. The lavatories afford a natural dance in accompaniment to which flowers and twigs flutter casting reflections of variegated hues on the fitful dancing surface of water and en-

hancing with their gestures the flirting beauty of its incessantly flowing music. The Dall, as it were, enjoys the revel in its distant onlooker's silence.

In the Dall there grow the floating fields of vegetable stories of the stealing of which by rival farmers you may have often come across. Lotus is the special beauty of the Dall. In one part of the lake it overgrows the whole expanse of water. You have open lotuses, half-open lotuses, and lotuses still budding—lotuses in short in every stage of bloom and beauty. Some stare at you, others invite you, still others welcome you, while a section are shy.

These, gentle reader, are some of the beauties of the gate of Eden—of merely the gate. The Eden you will find as you proceed further into the valley, where Gulmarg, Sonemarg and a lot of other *marghs* will give you insidious glimpses of the beauties of the Paradise on Earth, of which poets have sung so profusely and of which pleasure-lovers have at last found the whereabouts in the charms of the valley of Kashmir.

HINDUISM AND MOHAMMEDANISM.

THEIR ESSENTIAL UNITY.

(BY DOONGERSEE DHARAMSEE SAPAL, COLOMBO.)

The Prophet and his followers are ordered by God only to preach their religion, not to enforce it at the point of the sword.

'Let there be no violence in religion. Now is right direction manifestly distinguished from deceit.'

'But if thy Lord had pleased, verily all who are in the earth would have believed in general. Wilt thou therefore forcibly compel men to be true believers?' (The Koran.)

Says the Hindi Poet, Dindervash, "Hindus and Mohammedans are the two halves of a grain. There is no difference whatsoever between "Ram" and "Rahim"; it is the same God common to both the peoples." Thus Hindus and Muslims are both beloved twins of Mother India. Hindus and Muslims are brothers not only as poetically described in the above poem; for centuries they have been living together and treating each other like brothers. In social, in religious, in political customs, habits, and thoughts, these two people have so much mixed, intercoursed and mingled that after many centuries there has at last developed a common fellowship and brotherhood.

Great sages like Kabir and Nanak have preached and practised spiritual rapprochement between these two peoples, which has born very good fruits and abiding results. If we examine old annals, records, songs, ballads and poetry of India, we will discover great harmony between the spiritual outlooks of Islam and Hinduism. In the broad-minded liberalism of Hinduism there is much in principles, doctrines and scriptures which will stand in favourable comparison with the doctrines of Islam. There are points of contact, too, in the ways of

Sadhanas of the two faiths. There does not seem to a tolerant eye any important fundamental incompatibility between Hinduism and Islam. It is on account only of narrow sectarianism, bigotry and ignorance of the true aspects and doctrines of both the religions, that people attach much importance to trivial and purposeless things like passing singing processions before a mosque or a temple. Hinduism and Mohammedanism are in reality far too grand and sublime to notice such minor things.

The Islamic culture and religion have much attraction for us. It is far better to study the same from the original source than from tinted sources of Missionary penmanship. Moslem theology is beautifully simple. There is one God who made and created all men, animals and the whole world. He is Omnipotent, Omniscient, Merciful and Righteous. Says the Koran "He is God beside whom there is none who should be served, the knower of the unseen and the seen. He is the Merciful, the Compassionate. He is God beside whom there is no God, the King, the Holy, the Author of peace, the Granter of security, Gaurdian over all, the Mighty, the Restorer of every loss, the Possessor of every greatness. High is God above what they set up with Him. He is God, the Maker of all things, the Creator of all existence, the Fashioner of all images. His are the most excellent and beautiful attributes that man can imagine. Everything that exists in the heavens or on the earth sings His glory and His perfection and He is Mighty, the Wise. In East and West is God. Withersoever men turn themselves, the face of God doth meet them there. He is the light of heaven and Earth. He hears with

me. He sees with me and there is no God but one God."

The Upanishads say the same thing garbed in different words and form. "We cannot by searching find out God or know the Almighty unto perfection. For when there is, as it were, duality, then one sees the other, one hears the other, one perceives the other, one knows the other, but when God only is all this, how should one see another, how should one know another, how should one perceive another, how should one know another? How should one know Him by whom one knows all this? He is incomprehensible because He can not be comprehended. He is imperishable, for he can not perish. He is unfettered. He does not suffer. He does not fail. How, O beloved, should one know the Knower? He is intelligent whose body is spirit, whose form is light, whose thoughts are true; from whom all works, all desires, all sweet odours and tastes proceed. He who embraces all this, who never speaks and is never surprised. He is myself within the heart, greater than the earth, greater than the sky, greater than the heaven, greater than all these worlds. The All-worker, the All-desirer, the All-embracer. Unseen but seeing, unheard but hearing, unperceived but perceiving, unknown but knowing. He is one without a second."

A cursory glance will convince the reader that the teachings of the Koran and the Upanishads with regard to God are the same. Both Moslems and Hindus can with equal toleration read and study each other's scriptures, and the differences and divisions will disappear. The realisation of oneness, being the goal of Hindus and Moslems, there is harmony in the two religions which strikes any and every man. The Koran emphatically declares—“We make no difference between any of them.” Muslims are enjoined to practise toleration. Their religion teaches them that teachers and masters from Adam, and Abraham and Sri Krishna, Zarathustra,

Moses, Buddha, Jesus and Muhammad, all were divine personages, all benefactors of mankind, the representatives of God on earth, diffusing joy and peace, and minimising pain and suffering. Each of these preached and taught the Truth, according to the needs of the times and those amongst whom they lived. Says the Koran. “It is the duty of the Prophets to transmit knowledge.”

Hindus also believe the same thing. In Bhagwad Gita it is proclaimed that “Wherever and whenever corruption and sins increase, I come to this world to spread righteousness” Hindus respect, honour, and even worship Buddha, Mahabir, Jesus, and Mohammed. They are the most tolerant people on the face of the earth. Their religion, life and temper are full of charity and good-will for followers of other religions.

The holy Koran says the same thing—(2:151). We have sent you a prophet from amongst yourselves, who teaches you Our will and purifies you and teaches you knowledge and wisdom and teaches you what you did not know.

Ali the cousin and son-in-law of the prophet instructs his son Hasan thus:—

O, My son, thine own meditation within thyself is quite sufficient for thee, both the disease and the remedy are within thine own self. Thou art a small body but within thee, there is a vast universe, thou art the mother of the Books

In Chhandogya Upanishad, the child Swetketu is taught by his father Udalak thus:—

This Universal Self which blooms in every flower and breathes through every storm, is identical with the self of each one of us. “Now that light which shines above this heaven higher than all, higher than everything, in the highest world, beyond which there are no other worlds, that is the same light which is within man.”

The Kath Upanishad says—

There is one ruler the self, within all things who makes the one of manifold.

The wise who perceive Him within their self, to them belongs eternal happiness not to others. There is one eternal thinker thinking non-eternal thoughts, who, though one, fulfils the desires of many.

The practical teaching of Islam is to make all people faithful, prayerful and charitable by divesting them of all impure ideas, thoughts and actions. Much stress is laid on prayers. A true Moslem should devotedly pray his God five times a day. He should not covet much money. The Koran says that prayer drives away all wicked and evil thoughts. "God is Great. Hasten to prayer, to worship, hasten to righteousness, to prosperity. Prayer is the best of deeds. God is Great. There is no object of worship but God."

Also the Koran teaches men to be attached not to worldly goods but to Godly actions. "O believers! your worldly goods and children should never make you forget God." Again—The desire of accumulating wealth will keep you in darkness, till you have seen the grave and seen misery.

To be over-rich and amass immense wealth and to appropriate it to one's ownself is denounced by Moslem, as well as other, scriptures.

Hindus also are enjoined to pray to the Almighty. In the Mahabharat, in Bhagwat Gita and in the poetry of Kabir, Tukaram, Nanak, Tulsidas and others, God is prayed to and loved with the devotee's whole heart. Says Tulsidas :—

"Seers and sages, saints and hermits, fix on him their reverent gaze, and in faint and trembling accents. Holy Scriptures hum His praise.

He is the Omnipresent spirit, Lord of heaven and earth and hell.

The intensity of the Bhaktas longing for God is nowhere better shown than in the poetry of these saints. Again says Tulsidas.—Lord, look Thou upon me, naught can I do of myself. Whither

can I go ? Whom but Thee can I tell my sorrows ? Oft have I turned my face from Thee and grasped the things of this world, but Thou art the fountain of mercy. Turn not Thou Thy face from me—Lord, Thy ways ever give joy unto my heart. Tulsi is Thine alone, and O God of mercy, do unto him as seemeth good unto Thee.

As for renunciation and non-coveteousness after riches this is the vital part of Hinduism. Says the Isopnishad "Be content with what you get, don't run after other's money." Says another Upanishad—God is to be met only by renunciation and not by riches, family and household ties. A third Upanishad says—"Acquire immortality by renunciation."

The Koran is full of moral and ethical teachings. It says—

He (God) teaches you justice, equality, benevolence and charity and forbids objectionable things. He teaches you these in order that you should become straight, harmonised, perfect.

And he cleanses their hearts, purifies the mind, inaugurates true union.

Die before you die—kill your baser self, control your desires, regulate your mind, senses and body and kill that which keeps you from so regulating them.

If you do good, it is for yourself and if you do wrong it is also for yourself.

Whosoever taketh the right path, certainly doeth good to himself. Whosoever taketh the wrong path, certainly doeth wrong to himself.

And give to relatives their dues and to the poor and to the wayfarer.

And who have faith and do good work they are the enjoyers of Eternal Bliss.

Spend from the stock of goodness for parents, relatives, orphans, the poor, the wayfarer.

And let there be a class of people amongst you who should invite mankind to do good work.

The Prophet Muhammad says.—My Cherisher hath ordered me to do nine things (1) to reverence Him externally and internally, (2) to speak truth with propriety, in both prosperity and adversity, (3) to practise moderation in both affluence and poverty, (4) to benefit my relations and kindred, even those who do not benefit me, (5) to give alms to him who refuseth me, (6) to forgive him who injureth me, (7) that my silence should be in attaining a knowledge of God, (8) that when I speak I should mention Him, (9) that when I look on God's creatures, it should be as an example for them and God hath ordered me to direct men in that which is awful. All God's creatures are His family; and he is the most beloved of God who riseth to do most good to God's creatures.

The same ideas are to be found in the sacred books of Hindoos.

In Katha Upnishad (1, 11, 24) :—

He who has not first renounced evil ways, nor is subdued, nor tranquil, and whose mind is not at rest, even by knowledge he can never obtain the self.

In Manu (S. B. E. 25, 416) :—

Abstention from injuring creatures, veracity, abstention from unlawfully appropriating the goods of other's purity and control of the organs—Manu has declared this to be the summary of the law for the four castes.

In the Vasistha Smriti we find—(S. B. E. 14, 138) :—

Practise righteousness, never unrighteousness, speak truth not untruth, look far, not near. Look towards the Highest, not towards that which is not the Highest, says Manu—(S. B. E. 150).

Let him say what is true. Let him say what is pleasing. Let him utter no disagreeable truth and let him utter no agreeable falsehood, that is the eternal law.

In Brhadaranyaka (S. B. E. 15, 176) :—

A man of good acts will become good, a man of bad acts, bad. He becomes pure by pure deeds, bad by bad deeds.

In a famous passage of the Bhagwatgita the happy life of the devotee is thus described (S. B. E. 8, 101) :—Thit devotee of mine who hates no being, who is friendly and compassionate, who is free from egoism, to whom happiness and misery are alike, he who feels no joy and no aversion, who does not grieve and does not desire, who abandons both what is agreeable and disagreeable he is dear to me.

In Smriti we read (S.B.E. 14. 139 F.) :—

Happiness is the portion of that man who relinquishes all desires, which fools give up with difficulty, which do not diminish with age and which are a lifelong disease.

The five pillars of the faith of Islam are—

(1) Belief in the unity of God; (2) Prayer (3) Charity (4) Pilgrimage (5) Fasting. These are the five pillars of Islam which enable the true Moslem to proceed in the spiritual path and to realize the unity of God. Hindu Scriptures also commend the same means and there is not a single thing in the five pillars to which the Hindus could object.

The Fakirs and Kalandars of Moslems take the vows of poverty, renunciation and service of God. The same vow is taken by the Hindu Sadhus and Sanyasis. Both Fakirs and Sanyasies preach, sing and speak the word of God, both beg and live as poor men, suffering all privations for attaining God and wandering everywhere to rekindle the true light of religion, or else they retire to jungles for meditation.

Here is an anecdote illustrating the broad-mindedness of the Prophet. Sleeping once under a palm tree, he was awokened by an enemy named Du'thur, standing over him with a drawn sword. Who will save you now? "God," calmly answered the Prophet. And at once the sword fell from the hands of the Du'thur, which was at once taken up by the Prophet. 'O Du'thur who will now save thee?' 'No one', replied he. Then the Prophet with a great magnanimity handed to him the weapon and spared his life.

A similar incident is described in Mahabharat. When King Duryodhan was captured by the Gandharvas, the King Yudhistira ordered Arjuna to effect his release inspite of the remonstrations of Bhimsena and others who said that he was their deadly enemy and the cause of all their sorrow and misery. Still King Yudhistira got his enemy released.

Muslim ascetics, like the Hindu Sannyasis, retire to jungles for solitude and meditation. Miyan Hatim of Sambhal, wandered for ten years in desolate places, bare-headed and bare-footed, never sleeping in a bed. Another saint, Shaykh Muhammad Ghauth, whose tomb is one of the finest monuments in Gwalior, lived a life of austere asceticism for twelve years in the low hills of Chanar on the Ganges. Many such ascetics among Hindu Sadhus dwell in a lonely cell or a wood for meditation.

Nanak showed the way to the Unity of both the religions by the combination of what was best in Hinduism and Islam. Hindoos and Muslims were both welcome to him. The great Saint Kabir was a Mussalman weaver of low birth. He caught the true spirit of religion and sang the praises of the true God to both his Hindu and Mohamedan disciples. Ram and Rahim were synonymous to him. When he died, both Hindus and Moslems claimed his corpse for cremation and burial respectively. He learnt from his Guru Ramanand the true democratic

spirit and found that there was precious truth in both the religions. He says:—

"I and you are of one blood, and one life animates us both. From one mother is the world born. What knowledge is this that makes us separate. Kabir says, utter the name of God. He extinguishes birth and death."

"Turning away from the world. I have forgotten both caste and lineage."

My weaving is now in the infinite silence.

My heart being pure, I have seen the Lord.

Kabir having searched and searched himself hath found God within himself."

Haridas was a Muslim by birth, but he was recognised as one of the greatest Bhaktas under the inspiration of Sri Chaitanya.

Ali Khan Pathan was initiated in the secrets of Vaisnavism by the great saint Shri Vallabhacharya.

There is a legend of two ascetics of the Punjab—Dial Bhavan, a Hindu saint, and Jamal Sultan, a Muslim saint. Their tombs are still seen near each other at Girot in the Punjab, as a symbol of the friendship that united them when living. Dial Bhavan was already living and had a considerable following in Girot when the saint Jamal Sultan arrived there. Dial Bhavan sent to the newly arrived saint a vessel of milk, filled to the brim, indicating thereby that the town was full of his following and that for any other sect there was no room. Jamali Sultan at once understood the meaning of Dial Bhavan. But instead of going away, he sent back the vessel, with a rose petal floating on the surface of the milk and thereby won a warm welcome and friendship from the Hindu saint.

Dara Shikoh cultivated the society alike of Muslim Shaikhs and Hindu Sadhus. He has written that the diff-

erence between the doctrines of the Hindu pantheists and Muslim Mystics was in name only. He used to go to a hermitage built by the side of a temple near Sirhind in the Punjab, where a Hindu Yogi named Baba Lal was living. Two learned Hindus are said to have written the conversations and dialogues between the prince and the yogi in the year 1649. Dara also translated or caused to be translated some of the Upnishads into Persian.

Sher Shah who conquered the throne from Humayoon was a great king highly tolerant and sympathetic. Mr. W. Crookes observes. "Sher Shah was the first who attempted to found an empire broad-based upon the people's will". Also Keen says about him "No government, not even the British has shown so much wisdom as this Pathan.. Many Hindus have built Dargahs on Muslim Pirs and saints and many a Hindoo householder offer cocoanuts and money on their tombs, The village Hindus offer sirni—food and drink to Mussalman Pirs and in some places the tombs of *oliyas* or saints are held in universal respect by all the communities, as in Nawsari in Gujrat, where a saint's tomb is respected even by Parsis. Mussalmans are also seen offering cocoanuts and other things to various Hindu deities such as Sitala and Kali. In villages the intercourse between the two people is complete. No rancour, no social enmity, no religious bigotry, no fanaticism, is ever seen there. All are living in peaceful brotherhood, all serving the village by their different occupations. In the mercantile community there is a common fellowship between Hindus and Moslems.

Among the Bahais there is a remarkable movement emphasising the brotherhood of religions. This movement was started originally by Bab and later on led by Baha-Ullah and is now under the leadership of the latter's son, Abdul-Baha, also called Abbas. Effendi. It is a Hindu sect in a Mohammedan garb. The beautiful poetry of Hafiz, Mansur, Bulasah, and

other eminent poets preaches and describes the same "Al-Hak." or "Tatwamasi." of Vedant. Muslim Sufis have also Hindu disciples and innumerable singers bear witness to the ideal of a cultured unity of the two communities.

When Europe was in the clutches of ignorance, it was Mohammedan savants who rekindled the light of knowledge there. From Egypt and North Africa they penetrated into Spain and here in their academies Christian students from all parts of Europe flocked to learn art, medicine, astronomy, and other sciences. Thus the Moslems were the early pioneers of civilisation in Europe. They in their turn had borrowed the larger part of their culture from India. Susrat and Charak were translated into Arabic. The Philosophy of the Hindus as well as their astronomy was taught at Bagdad. Hindu Arts and Sciences were not only learnt by them but also propagated wherever they went. Mathematics, too, is a science of Indian origin, which Arabian Ulmas transferred to Europe.

Hindu Music, so divine and graceful, has the Mohammedan Khansahibs as its chief votaries. The Mogul paintings so famous have derived their inspiration from the Rajput school of painting.

Hindu and Moslem craftsmen were without racial or religious animosities. They worked for one sect of Hinduism as willingly as for another. The priests and Moulvis and fanatics might quarrel but these craftsmen preached the essence of their toleration in art, colour and stone. The same craftsman built Taj, Kutab Minar, as well as Temples of Dilwara at Abu and Caves of Ajanta and Ellore.

Hinduism teaches the truth of the reality of the spirit, the substance underlying all existence. Islam teaches one God. Hinduism is full of beautiful spirituality. Islam is simplicity itself. Hinduism encourages true piety, while Islam is very catholic and democratic.

Guru Nanak Sahib rightly says:—

"He alone is a true Hindu whose heart is just and he only a good Mohammedan whose life is pure. Be true and thou shalt be free. Truth belongs to thee and success to thy creator."

"God will not ask man of what race he is. He will ask what he has done."

"Heed not the command of an impure man though he be among the nobles of the land. Of one who is pure though

among the most despised, will Nanak become the footstool."

"Put on the armour that harms no one. Let thy coat of mail be reason, and convert thy enemies to friendship. All founders of sects are mortal. God alone endures for ever. Men may read the Vedas and the Koran. But only in Him is salvation."

An Indian proverb runs thus:—

Live so as to be claimed after death, to be burned by the Hindus, and to be buried by the Moslems.

THE SOCIAL PROBLEM.

THE FAITH INDIA HAS LIVED BY.

(By PR. T. L. VASWANI M. A.)

Life is Field of Service. And you are here to consider the Social Problem, the Problem of Service. This Problem will not be solved by paper resolutions. Nor by raising money. The Problem is one of shakti, not of some "reforms" here and there. There is a collective soul, an *atman* of the Society. But we have imprisoned it, and the Nation is become weak. Consider the state of things. 7 crores of our fellow-countrymen have we despised as "untouchables." Crores of women have we thrown in the darkness of ignorance, when the great scriptures of our race have told us that *vidya*, or knowledge, is a spiritual pursuit. And our children we have driven into schools and colleges alien to the spiritual and cultural ideals of the East. There is a law:—when you throw others into the ditch, you also fall into it. We are

in a ditch. How shall we come out of it? A shakti is needed. Never think any nation will respect you as long as you are weak. Not even the gods have mercy upon the weak. For the law is stern: Let those that are weak, be weaker still. To my countrymen I say: you who fight the sarkar,—learn also, to fight yourselves, fight the evils which make our society weak.

How may we draw out the *shakti* of our Collective Soul? Let me invite your attention to 3 of the things I regard as essential in this connection.

(1) Brahmacharya:—This will give us a new physical and mental strength. To-day many of our countrymen go about with broken bodies and feeble minds. Child marriage is a violation of the law of brahmacharya.

Brahmacharya will not only build up our bodies and brain ; it will also, I hold, open up the centre of "intuition" referred to in our scriptures as buddhi." The Rishis observed Brahmacharya, and so became "seers." For "buddhi" "intuition" is a direct method of arriving at truth,—of knowing at the "centre", while the sciences and philosophies know at the "circumference." We read in the books that the Rishis 'saw the mantras'. The mantras are vibrations from the Great Reality. They come to those, who by brahmacharya open the higher centre,—that of "intuition" We are arriving at a stage in our history when Humanity will listen to no message of mere 'mind' or encyclopaedic learning. Humanity longs for a new message of Intuition, of Inner Illumination. India can give it, if she will make brahmacharya the basis of her new life. Brahmacharya has its place, also, in the married life ; for the essence of bramacharya is control of sex desire. With this control is developed the creative power, shakti, of life.

(2) Woman's Awakening:—What reverence for woman in ancient India! Today alas! The Indian woman is in purdah and ignorance. Woman is the great guardian of the intuitions and idealism of life. And the day of a nation's freedom does not arrive until its women respond to the Call of Freedom. So it has been in Turkey and Egypt. Woman's awakening heralds freedom. This is my reading of the history of the nations that have achieved liberation in recent years.

(3) Education—you speak of 'national education'. I prefer the expression;—'Indian education.' That

to my mind, is true education which is controlled by the Indian Ideal. In a "national school," emphasis must be on India, the spirit of her civilization, the deeds of her heroes, the songs of her poets, the teachings of her sages, the message of her Rishis. That is India—not the superficialities and sensationalism of today. That India is what we of India need to day. That India is the Nation's piteous need to-day. That "national education" is a poor, shrunken thing, which is not inspired by the international message, the Spiritual Ideal of the India of the Rishis. O keep alive a memory of that India in your aspirations and activities. Our one great malady is, —forgetfulness. We have forgotten the faith which India has lived by, through the ages.

This then, is my appeal to you, —keep alive Her memory. One spring-day, I went into a garden, and Nature was radiant with flowers. And the song-birds sang. And of one,—the bulbul,— I asked:—"In thy song is a strange shakti—a power that moves. Tell me the secret of it." And to my heart, the bulbul answered ;—"In my lyric cry is Remembrance." Remember Her,—your Mother, in your institutions and activities. A new shakti will then be yours in your work,—educational, social, political. Keep alive Her memory. Then go to the villages where they wait for you, men and women, with hunger in their bodies and hearts. Go to the poor, and give them the great message of the Mother. Keep alive Her memory. Then go and proclaim the coming of the kingdom of the Spirit. Keep alive Her memory, my comrades ! And you will have the shakti to hypnotise Hindustan.

A PLEA FOR CO-ORDINATING THE EDUCATIONAL ACTIVITIES OF THE ARYA SAMAJ.

(BY MR. BRIJ NATH MITHAL B. Sc., L.L. B.)

More than two decades have passed by since the great Rishi gave up his mortal coil, and already there are signs not wanting that the Arya Samaj which he founded to carry on his mission of the Vedas is a dying society, or at least that the enthusiasm and intensity of religious feeling which marked the first generation of people is gradually waning. And if this rate of progress is kept up, we may see at no distant date a final winding up of the movement, nourished and supported by the very life blood of the Maharishi and his devoted disciples. There may be an element of exaggeration in all this but there can be no doubt that one fails to see the same signs of active life in the Arya Samaj during these days as characterized it in its beginning which hardly reflects any credit on the followers of a religious organisation, imbued with a religious belief and a desire to propagate the same in all parts of the globe.

It will be hard to find in the history of any religious movement such inertia cropping up within so brief a period as in the case of this movement and although it may be true that the Samaj alone still holds the field in the matter of Social reform and other national activities, it cannot satisfy an ardent soul who is desirous of seeing the mission and the message of the revered founder carried to the very doors of thirty millions of Indian masses. What a great leeway has yet to be made

up is perhaps not realized by those responsible. While other societies—the Christians and the Muhammedans are taking rapid strides in multiplying their numbers and other religious activities we are crawling only at a snail's pace.

To take only one side of the activities of the Arya Samaj viz., educational, which is the immediate object of this brief article, let us examine the progress we have made and whether it is at all commensurate with the time, energy, money and sacrifice made by us. It is true that we have got a net-work of D. A. V. Schools in the Panjab and the U. P. we possess two first grade Colleges in these Provinces and the national ancient system of Gurukula has also been revived and several institutions on that model have been established not only in Northern India but also in other parts of the country. But is that enough to satisfy us? What about the idea of a Dayananda University, which has been agitating the leaders for a great many years? Is it any the nearer for realization? While later movements like the Muslim University, and Hindu University are now in full swing we remain where we were. Our whole work is going in a hopelessly disorganized state and although we may meet with a boys' D. A. V. School or a girls' Pathshala at almost every important town, there is no co-ordination between the various institutions. Each

city and town and each Arya Samaj wants to maintain an institution of its own, and as a result of this institution mania, our provincial institutions suffer for want of funds, for local support is always given to local institutions and in meeting the requirements of these, those of the former are neglected.

Similarly in the matter of Gurukulas, a great deal of wastage is taking place for want of this co-ordination. Each province wants to maintain and carry on an institution for the mere sake of a name—however inefficient and ill-equipped it may be. As a result, I am constrained to say there are some of them which are becoming positively injurious to the well-being of our future generations and instead of doing any good, become a source of nuisance in course of time. In the course of a brief article on the future of Gurukulas published in the Vedic Magazine in 1922, I had indicated some of the lines on which the work could be carried on, but it failed to attract the attention of those responsible, perhaps, because it was the feeble voice of an unknown and an humble follower of Rishi Dayananda. But the problem must face us sooner or later—and if we fail to take an early notice of it, it may trouble us at a time when we are most ill-equipped to meet it and then the consequences, may be disastrous.

To my mind, the chief reason why our educational activities have so far been in a disorganized state, is too much of narrow, provincial, and local feeling of patriotism. We have thought more of a town or a province and personal glory in some cases, instead of thinking

in terms of an All-India or All-World religious movement. Our petty quarrels have divided us and these personal jealousies and bickerings have ruined our cause. While a spirit of rivalry exists amongst people professing the same religious beliefs and swearing by the same sacred names, work is difficult to be carried on. The result is that our All-India organisation is in a moribund state for want of a proper support. A section of our people is entirely aloof from it, while our co-religionists in Bengal, Bombay, Behar, Madras etc. are entirely unrepresented on that body. Our personal and party spirit has, unfortunately, been carried to such an extent, that even over the question of celebrating the Dayananda Centenary there is a rift in the lute. Is that an happy augury for our future ! I think not. As believers of the great Vedas, as followers of the great Rishi Dayananda as inheritors of a common civilization, and as men imbued with a desire to do good, and belonging to one religious persuasion, we must cease to be swayed by any narrow or parochial considerations, but think only of the movement, and merge our all in it. Then and then alone, we may be able to fulfil our mission and carry the torch of light, as is so boastingly sung by our Bhajniks, that our flag will be flying over Mecca and Medina. I may be pardoned for all this plain speaking, but I feel that it is necessary that there must be some introspection also, and while it is always pleasing to listen to one's praise our defects should not also be lost sight of. I may have struck a pessimistic note, but it is not with a view to mar the enthusiasm of our young generation but to put them on their guard to

avoid the pitfalls into which we are likely to fall.

Now, as I have said, while the Arya Samaj has done yeoman's service, specially in Northern India, in the matter of spreading education and giving an idea as to the true form of national education, our activities have been more or less unfruitful of the result which one should have expected after an expenditure of so much energy, and money. The time has now arrived when we must co-ordinate all our educational activities, if we want to prevent wastage, and in this noble task we must all combine irrespective of our party or personal or even provincial differences. We are already so short of real and earnest workers that we can never afford to divide our energies.

I am giving here in brief outline a sort of tentative proposal, just to enable people to form it the basis of a discussion, how this work may be proceeded with. I do not claim any finality or even originality about these, but I am laying them in all humility before the Aryan public in order that they will think over the matter, and do something practical by the time we come to celebrate the Dayananda Centenary in February 1925.

(1). The Sarvdeshik Sabha (All-India organization) must be made a truly representative body in which all the *Pratinidhi* Sabhas must be made to join. If rules need any amendment on this point, it should be done.

The President of the Sabha, should be a Sanayasi of note in the Arya Samaj who should be elected every three years in the manner of a Presi-

dent of a Republic. He should be regarded as our religious head for the time being.

(2) Under the Sarvdeshik Sabha, there should be a Vidya Vibhag or Educational Department of which the President of the Sabha will be the *ex-officio* chairman.

The constitution of the Vidya Sabha may be somewhat on the following lines.

President—President of the Sarvdeshik Sabha.

Vice-Presidents—Presidents of the various Provincial Sabhas, *Ex-officio*.

Members of Executive board.

1. All Principals of the D. A. V. and other Samajic Colleges in the country.

2. All Principals and Governors of Gurukulas under any Pratinidhi Sabha.

3. All Principals and Governors of the Kanya Gurukulas affiliated to a Provincial Sabha.

4. One educationist of repute in the Samaj nominated by each Provincial Sabha other than a member of the staff of any educational institution.

5. Four ladies to be co-opted by the Board.

6. Four educationists outside the Arya Samaj, whom the Board may wish to co-opted.

Secretary—Secretary Sarvdeshik Sabha.

The function of this Board will be to control the educational activi-

ties of the Arya Samaj and lay down several rules of conduct, but it will not interfere with the right of any Pratinidhi Sabha or Society to adhere to any particular system (*i.e.* the Gurukula or the College system) of education. In the matter of Gurukulas (both male and female) it will also control the educational policy of these, laying down what particular branch will be taught in one Gurukula and what subject or subjects in another. Financially the respective Sabhas will be responsible for the upkeep of their respective institutions as hitherto.

There will be at least three Faculties under the above Board.

(a). University Education Faculty, which will control all the Samajic institutions in the country affiliated to any University and lay down rules etc., for the same. Of this, the president will be one of the members of the Board who is a believer in that system of education.

(b). National or Gurukula Education Faculty, which will control all Samajic institutions giving education on Gurukula lines. This faculty will be presided over by any of the Acharyas of the various Gurukulas.

3. Women's Faculty.—Which shall control all educational institutions for women in the country. Constitution of these faculties is a matter of detail and can be drawn up to suit our needs. If the scheme is approved in its main outline, further details can be worked out. I do not know if my ideal is an ambitious one, but I feel that something must be done to remedy the present state of affairs to prevent the enormous wastage that is taking place, both of men and money. I am sure, financially we will be much better off if an organised effort is made to run our institutions. I shall await a discussion on the subject and I am sure, sir, you will open up the columns of your Magazine for the purpose.

THE GOOD LAW.

(BY MR. M. H. SYED, B. A., L. T.)

There is nothing which has wrought so much havoc in the practical life of the Hindus, as the misconception of the Law of Karma—the eternal law of cause and effect—that works with unerring precision in all departments of human life.

It is said that it is a gloomy doctrine and that it tends to paralyse human effort, and closes the spring of all right

action. In popular language this doctrine means predestination pure and simple. It is believed that a man is a creature of his past actions and all his present life with its varied activities, joys, sorrows, pain and pleasure, success and failure, gain and loss, are predetermined by his past doings over which he has no control, and therefore he should be utterly resigned and waste

no time in improving his or his neighbour's lot.

There is only an element of truth in this attitude ; in other words it is only half a truth that is understood and followed ; unless the whole truth is grasped with regard to this doctrine, it will always prove a source of confusion and cause a great deal of harm.

If Indian people are to rise from their present state of degradation and shake off the fetters of their thralldom, it is time, that they should clearly try to understand the true meaning and philosophy of actions, and the reign of the law of Karma under which the whole of the human race has to evolve.

It is true that a man's present abilities or disabilities are the direct outcome of his own thoughts and actions in the past; his congenital endowments, his physical heredity, his moral and mental instincts and capacities are the result of his own thoughts and feelings of his previous births. A farmer reaps a rich harvest only when he labours in his field for a long time ; unless he cared to till the ground, sow the seed, water and manure it, he would not be in a position to enjoy the fruit of his toil. What he sowed yesterday, he is reaping to-day and what he sows to-day he will reap tomorrow. This is an immutable law and holds good in every thing without an exception. To say that one's capacity for fresh effort, and new lines of action, is paralysed or doomed by one's past doings is as futile and groundless as to say that because one sowed yesterday one cannot sow fresh seeds in new grounds to-day.

The fact of the matter is that free will is never choked and stifled by any past action. The only thing is that a man cannot achieve what he wants all at once, and without any delay. The good law pays every person according to his meed and in due time. The law runs its own course. The results of past actions, thoughts and feelings, appear to us as effects of causes we set up from our own free choice and similarly we are equally free and unfettered to choose a line of action which is sure to bring its fruit, in due time.

A man is bound by the past debts he incurred or contracts he made. As soon as he pays up his liabilities he is once more free to choose whether he should incur fresh debt or not. Over the inevitable he has no control and if the law is to be justified, he should have no reason to complain against it. It is always open to him to mould the Karma which is in the course of making in any way he likes. Under the security of the changeless law of cause and effect a man can serenely proceed to achieve any thing he desires to accomplish. Sooner or later he is sure to succeed in his well-directed efforts. In nature nothing is lost. Again, as Bacon said, "Nature is conquered by obedience." By Nature he meant natural laws.

If we once understand the law that guides our life and action, we shall be able to act in such a manner as to make this law our ally and help mate rather than our adversary. So long as the conditions laid down by a law are meticulously fulfilled and observed, we have fullest certainty of our success in any direction.

The three aspects of the law of Karma should clearly be grasped. The first is the Sanchita Karma—the sum total and store-house of all our actions, good or bad in the innumerable past lives that we have left behind or from the time we began to discriminate right from wrong and thus started acting on our own responsibility and with our own initiative. The whole of it is recorded and preserved ; how could it be otherwise when we live under the reign of an immutable law ? The second is Prarabdha—the inevitable Karma—That portion of our Karma which is assigned to us to be worked out in a single life in relation to men and things we met and experienced in previous lives. This is also called Ripe Karma, because it is a debt which is overdue and it is time that it should be paid in the form of sorrow and suffering, gain and loss, to the uttermost farthing whether we like it or not. The third form is that of Kiryamana, that Karma which is in the course of making. It is this which preserves our free will with certain limitations and ensures our future success. Because man is made in God's image and shares divine life, he is free to act in any way he likes. In virtue of the same principle whatever he intensely desires he is sure to accomplish in the course of time. "Perform thou right action, for action is superior to inaction, and in inaction even the maintenance of thy body would be impossible," So says the Blessed Lord, Sri Krishna.

Whatever is true in the case of an individual is also true in the case of a nation, for individuals make a nation. "As in small so in great," says ancient **Hermes.**

The collective Karma of a race or a nation is as much a fact in nature as an individual one. The same principles underlying the Karmic laws apply without much wide difference, to national and collective Karma. The nations rise and fall, empires flourish and are dismembered on the same ground. The wise heads in a nation should not neglect the dominating sway of this law.

In the midst of a national calamity it is well to remember that nothing can come to us which we have not deserved. We may not be able to see the immediate cause of a catastrophe, but it does not follow that it took place without sufficient cause.

During the last thousand years and more many heart rending and humiliating events occurred on the soil of Mother India, devastating the whole land, robbing her sons of their precious jewels and even more precious lives. The incidents of our own times are too fresh in our memories to need any repetition. Have these soul-scorching incidents and cataclysms taken place without any rhyme or reason ? No ; there is nothing that can happen to us beyond the scope of the good and utterly just law. Every thing has its own time and place. In our ignorance we may not be able to trace the immediate cause with certainty, definiteness and accuracy ; but this much is certain beyond the least shadow of doubt that nothing unmerited can happen to us or to our country.

Our own apathy, indifference, lack of patriotism, communal and caste dissensions, mutual hatred, suspicion and strife, have been the main cause

of our present and past degradation. As our collective Karma brought on us the wrath of divine justice and fit retribution closely followed in the wake of our evil deeds and we deservedly suffered and paid for them heavily, so we can again exert our collective will in the right direction and

learn to be wise and circumspect in the light of our past bitter experience and deep humiliation. In the course of time we shall begin to see the eclipse of downfall, servitude and thraldom gradually disappearing from the Sun of the Motherland and we shall once more be free and great as our forbears were.

"THE ARYA SAMAJ AND THE HINDU SOCIETY"

(BY MR. G. A. CHANDAVARKAR, B. A.)

The vitality of the Hindu civilisation is undeniably great. In the past it has successfully withstood the onslaughts of alien civilisations and in spite of the political subjugation of the Hindus through ages, the race as a whole has maintained its own peculiar features and to this day it has survived. Its survival is an eloquent testimony of the fact that it is the 'fittest' type of civilisation. Another outstanding feature of the history of Hindu civilisation is that at certain epochs distinct signs of decay were visible and great personages at the critical juncture appeared on the scene and by their sheer soul-force arrested the process of decay. Such saviours of Hindu India have been few and far between. In that muster-roll of the benefactors, the names of Gautama Buddha, Kumarilabhat and Swami Shankaracharya have been written in letters of gold. Hindu India has not failed to include them in its pantheon. It proclaims that they were the very "Avatars" of the Almighty who, it is believed, descended with a special mission from time to time to save the Hindu race from the "Dharma Glanee"—धर्मग्लानी

In this paper we propose to briefly deal with the mission of Swami Dayananda and the Arya Samaj in relation to the Hindu Society. Let it also be clearly understood that in selecting this parti-

cular individual we are not unmindful of the work of other great and good sons of India who have also rendered yeoman's service to the cause of Indian nationality. Raja Ram Mohan Roy, and Swami Vivekananda did strive for and achieve, something good for the Hindu India, in their own way. Swami Dayananda's mission was and is unique in certain ways. His towering personality was cast in altogether a different mould. He was a mastermind. He was not a product of the occidental learning. He was blissfully ignorant of the English language which made Ram Mohan, Keshab Chandra Sen and Vivekananda what they were. He was a *Sanyasin* and had no worldly aspirations. He was a patriot unmindful of the glory and fame which falls to the lot of a saviour. He was a great Sanskrit scholar and if he has done anything to serve the national cause, he drew his inspiration entirely from the Vedic literature, the significance of which is recognised by the Hindus also. But strangely enough he was *misunderstood* even by the Hindus for whose cause he lived a noble life and died a noble death. But such has been the lot of almost all the great men all over the world and Dayananda's could not be an exception.

In the early days of the history of the Arya Samaj it was the orthodox Hindu

party which now sails under the banner of "Sanatana Dharma" that hated and disliked the movement most. Of course there was some justification for this attitude of contumely bordering on hatred. Lapse of time has worked miracles. Better counsels seem to have prevailed. Worst enemies are on the road to intimate friendship. At first the priestly class in the Hindu Society began to view the activities of this irreconcilable iconoclast with disfavour. They were afraid, perchance rightly, that Dayananda's vehement denunciation of idolatry and other costly and irrational ceremonies would touch their pockets, their income would fall and material glory founded on indolence would vanish in the thinness of the air. It seems as though the people are gradually coming to realise that the Hindu temples run on the present lines are an economic waste and the funds of these institutions that are incrdinately rich should be utilised for better purposes of greater utility. Recently when floods caused great havoc in Kanara many disciples of the rich mutts unanimously voted to request the heads of these mutts to substantially aid the people rendered homeless. Another movement to utilise these funds for the sake of imparting higher education in Sanskrit is also working vigorously. In Southern India there are temples that are fabulously rich and no better change could come over the leaders of 'orthodox Hindu India' than to divert these funds into more useful channels. Signs of the times are clearly encouraging and hopeful. The sessions of the Hindu Sabha recently held at Benares speak volumes in favour of the mutual toleration among the Arya Samajists, the Sanatanists and the Buddhists. The resolutions passed, at least the majority of them, could have been with equal force passed from the platform of an Arya Samaj. Leaders of the different subsections and communities and parties holding diametrically opposite views were moving on terms of friendship. Readers will pardon our sturdy optimism when we say that the Hindu Society is gradually coming to

realise that the Arya Samaj also is aiming at the national solidarity of the Hindu race and it deserves the support of all the Hindus. This optimism of ours is not based on mere sentimental grounds or pious hopes but we have arrived at the conclusion basing it on the following grounds:—

Firstly, Swami Dayananda realised that the Hindus are a decaying race in more senses than one. The Sanskrit language, the *Geervana Bhasha*, the *Deva-Vanees* was in reality a *dead* language and the descendants of Kanada and Gautama dazzled, as they were, by the rays of western learning and sciences were being metamorphosed into the great admirers of Mill and Kant, forgetting their own identity. It was Swami Dayananda who once more raised the dignity of the Sanskrit language. A nation without a language is a contradiction in terms. The Hindus forgetting a language like Sanskrit and neglecting its advancement could have no place in the comity of nations. His admiration for Sanskrit did not blind him to the necessity of advancing the cause of the Indian vernaculars. The Gurukula at Kangri run by the Arya Pratinidhi Sabha is the first vernacular university started in India, independent of state aid. To-day it is the foremost. It has established the fact beyond the shadow of a doubt that in raising the dignity of Sanskrit and Hindi the Arya Samaj has raised the dignity of the whole Hindu India. Even European scholars, state officials and irreconcilable critics who have visited the institution feel that the ideals are noble and worthy of imitation and support. Doctor Rabindranath Tagore's ideal of a *Vishwa-Bharatiya Shala* is an echo of Gurukula. The Congress leaders of India proclaim from the house-tops that national education should be imparted. If in 1923 problem of national education has occupied the forefront of the programme of the Indian leaders who can deny that in 1880 Swami Dayananda matured the plans of national education and in 1902

they were embodied in the Gurukula University ? Do not the Rishi-kula of the 'Sanatanists' and the national schools and colleges in India endeavoured to be started conclusively prove that the Arya Samaj laid the foundations of national education on right lines and has it not, thereby, earned the gratitude of the Hindu Society ?

Secondly, let us view the question of the *decrease in numbers* of the Hindus. Conversion of the Hindus, mainly the lower classes to alien faiths has adversely affected the Hindus. The Census figures bore ample testimony to the fact that year by year the Hindus were decreasing in numbers. Till recently, the Shuddhi movement was restricted to the Arya Samaj. If in 1922 the Moplah rebellion and similar causes opened the eyes of the Hindus that without reconversion there would result a grave national disaster, was it not the Arya Samaj that was first in the field to foresee the evil consequences and launch out the Shuddhi movement ? Has not the Arya Samaj any claim on the gratitude of the Hindu India ? People there are who believe that the Arya Samaj has strained the relations between the different communities and spread disaffection in this land. But it is acknowledged even by leaders like Swami Shraddhananda that it is a *defensive movement* and not an *offensive one*. It is possible, however, that in defence an indirect cause for offense may exist but it is inevitable. Self-preservation is no heinous crime. Every nation in the world is instinctively inclined towards it. If it does not endeavour to arrest the onslaughts it is inviting ruin upon itself. The Hindu Society has joined hands with the Arya Samaj though late. '*Better late than never.*'

Thirdly, there is a school of thinkers in India that tenaciously cling to the notion that religious movements in India deaden the sense of political conscientiousness and an over-dose of religion has benumbed the Hindu Society. If we wipe the dust of

prejudice from our eyes we shall see that the Arya Samaj movement has never tolerated the idea of creating a band of dreamers, drones or idle speculators. Its philosophy is not of *inaction* but of *benevolent action* which was at one time misunderstood to be 'Sedition.' It had first to rouse the national conscientiousness and establish the dignity. This it did by presenting a glorious picture of the past and drawing in broad outlines the future programme of work on definite lines.

Evolution of *National Solidarity* is always a slow and difficult process. Those that aim at it have no royal road to tread on. Their path is always strewn with thorns and pitfalls. The Arya Samaj had to steer the barge through the Scylla of internal dissensions and the Charybdis of external aggression. The haven is not in sight yet. The Hindu Society should dispassionately view its activities and sincerely feel that it has a great and a good purpose to serve. Its founder was a great nation-builder who lived and died for the sake of his religion and country. We do not request the Hindu Society to find a place for him in their pantheon. He himself did not want it. All that we ask for is that the Hindu leaders of thought should clearly see the motives underlying Dayananda's work and help the cause. Because the cause of the Arya Samaj is in more senses than one the cause of the Hindu Society. The members of the Arya Samaj have no selfish and sinister motives. What selfish motives could Lala Hans Raj have in running the D.A.-V College and other sister institutions ? What sinister purpose is served by Swami Shraddhananda in starting the Gurukula ? Do they or other workers ever dream of amassing wealth or aspiring for high and lucrative posts ? They are like their founder. *Sanyasies* bent on doing good to the public at great sacrifice. Let the Hindu Society realise this fact that the Arya Samaj is the blood of their blood and the flesh of their flesh. We are also sanguine enough that the Arya Samajists on their behalf will and do regard the cause

of the Hindu Society as their own. The problems of early marriages, inter-dining and right forms of worship will in course of time solve themselves. It is difficult to dictate a particular form of dogmas in religion to any individual. It

is his own concern. But above all this, there is the great national cause for which all should struggle and scramble, brushing aside all minor cobwebs of bigotry and selfishness.

GLIMPSES OF DAYANANDA

XV.

THE OCEAN OF MERCY.

A tract by Swami Dayananda is styled *Go-Karuna Nidhi*, i. e. Treasure of Mercy to the Cow. It was circulated broadcast during his life-time. A part of Dayananda's propaganda was to preach mercy towards animals. In pursuance of this mission of his he opened a *Go-Rakhshini Sabha*. All those that believed in the necessity of the preservation of cows, no matter what was their religious belief, could become members of this society. He sought interviews with high officials, and tried to persuade the governing head of a province to take the initiative by passing in his Council a legislative measure prohibiting the killing of cows. A memorial signed by thousands of Indians of all faiths, was prepared to be presented to Queen Victoria, to urge the necessity of making the slaughter of cows an offence in the Indian Penal Code.

All these activities were engineered by Swami Dayananda, and made so popular that even Mohammedans and Christians had no hesitation in joining this Hindu humanitarian movement. The point of view from which

Dayananda approached this question was that of humanity and economics, not that of veneration for the cow which as a tenet of the Hindu faith, causes aversion to the Mohammedan fanatic. In his brochure also he emphasised the economic side of the problem. In this way he elevated what to the Hindu is a simple Shastric behest to be blindly believed and carried out to the high level of a dictate of enlightened rationalism. By means of mathematical calculations he made out the greater utility of using the cow as milch animal than using beef as an article of food. On medical grounds, too, he prohibits the use of meat.

The cow appeared to Dayananda to be the connecting link between men and animals. His advocacy of the preservation of the cows was in fact the advocacy of the preservation of all animals. This view of his is reiterated by him in more than one place. He permits the practice of hunting to the *Kshatriya*. This is to be a part of his training. The object of the art is to teach him manliness, which, as the word implies, should spare the weak and keep in check the cruel. Those beasts of prey, which are a

danger to human beings, are alone to be destroyed and killed. A *raja* that indulges in the pursuit as a pastime, commits, according to Manu, whom Dayananda quotes, a sin which the laws prohibit.

In matters of food the Arya Samaj is a vegetarian society. It is a manly faith, including chivalry to the weak in its broad definition of manliness. Even eggs and fish, which certain vegetarian associations of the West regard as permissible food are not at all allowed to the Arya Samajist.

As an instance of the humanity of Dayananda we shall quote an incident from his life. It was at Datarpur that while returning from a ramble, he came across a bullock cart, which somehow had got stuck in the mud. The driver of the cart stood on the bank of the slough. He had a big staff in his hand, with which he was beating the bullocks very hard. The dumb animals had exercised their whole strength, but finding the task beyond their conjoint efforts, stood tamely suffering the tyranny of their master. The latter, too, was tired, as his hard breath abundantly showed. Dayananda, as he sighted this spectacle, was deeply moved. He lost no time in hastening to the scene of misery. Taking off his clothes he relieved the bullocks of the burden of the yoke, which, forthwith he placed on his own neck, and lo ! the cart was out in an instant. With what grateful eyes the carter viewed the sage, as he moved away, and what profound sense of thankfulness his provident aid evoked in the hearts of the tame speechless animals, is for the reader to imagine.

The *Ahinsa* followed by Dayananda is no whit less than that practised by Buddha. Himself a Brahmana, and that, too, in the stage of renunciation and love, viz. that of *Sanyas*, he never took up a weapon even to hit back an adversary. His was a vow of absolute tolerance. He saved himself without hurting others. While not yet a sage, he relates how he once met a wild boar, and perceiving that the animal would attack him. he only lifted up his huge staff and the beast disappeared. Pataujali, in his *Yoga Darshan* mentions a *Siddhi*, i. e. a yogic achievement by dint of which the practiser who has purged his mind of the very idea of violence is not only himself immune from the violence of others, but even such brutes as nature has made mutually inimical forget their malice in his presence. Till that stage is reached, self-defence is under Aryan laws a duty. Men and women of all classes and of all *Ashrams* are called upon to keep themselves equipped against attacks. The same law applies to communities and nationalities. The courage that a war occasions is nowhere denounced as a sin. To Krishna, on the contrary, the shedding of blood appears to be a specially meritorious act. He urges Arjuna to enter war as he would enter into unbarred gate of heavenly bliss. Dayananda, while he lays great stress on mercy, takes care that the sentiment of mercy should, on no account have an enervating influence on the temperament of men. It is the strong, those that, if they were so minded, could hurt and even kill people, that can save them. Mercy is a brave sentiment.

XVI.

THE SAVIOUR.

We have seen in the preceding chapter how Dayananda's love flowed evenly towards all creatures. His mercy blessed both man and beast. The affection he felt towards his fellow-beings was broad-based on a desire to do good to the whole world of being. The interests of the whole, he always placed above those of a part. Society, or which is the same thing, community, he ever viewed as standing higher than individuals. Among creatures, too, he recognised grades. Man, to him, was the lord of creation, not that he should tyrannise over his fellow-beings, but that he should be their guardian and protector. This he thought to be the essence of all lordship. The glory of man, he says, is the love he evinces to his fellow-creatures. He may utilise them, yoke them to his service, but he should use them in a way to clearly indicate that he and they are of one family. Such is the ancient teaching of the Vedas, and Dayananda, as we have said elsewhere, embodied in him the primeval lessons inculcated to mankind at the dawn of creation.

Dayananda was conscious that for the preservation of human society, for its maintenance in a firm state of stability, Justice, both divine and human, has been devised to act as a powerful lever. The law of Karma works unobserved, but sure. The wheel of divine equity turns slowly and invisibly, but it grinds fine, it grinds hard. It is because of that wheel that the machinery of the Universe is working. In the stern decrees of providence, however, there

may be observed a powerful tone of mildness, of mercy. Of the whole music of divine dispensations, love is the keynote. Even the wrath of the Heavenly Father is expressed in notes pitched in that soft key.

To human beings is entrusted the task of the reformation of man. As the goal even of divine justice is the uplift of human beings, so, too, is human equity ordained to temper itself for that goal. The human culprit should be treated in a manner that should tend to his betterment in future. With this object in view are the present jails, courts and police establishments condemned by modern reformers. With crimes, the latter have no sympathy. They wish to save humanity in which they include also the worst criminal. They will punish the latter in a way to make of him a better man after his being punished.

Punishment, according to the divine code, should vary, not with the degree of seriousness of the offence, but with the temperament, the degree of tractability, of the offender. To some stern justice will be good; to others a modicum of mercy will prove the elixir of life. The most incorrigible fellows have been known to have reformed, as if sudden metamorphosis had taken place in them, at an unexpected expression of kindness, or by simply a sympathetic look of a really forgiving magnanimous soul. The glance has gone deep into them; it has changed their very nature.

Such a great soul was Swami Dayananda. Himself ready to bear the bitterest fruits of his actions of both past and present lives, his attitude

towards those that offended him was one always marked with love and highest magnanimity. In the criminal code which he would enforce in an ideal Arya Kingdom, he assigns very condign punishments for seemingly small offences. His idea there is to strike terror in the hearts of the people. He would minimise the frequency of punishments, even though he should add to their stringency. Where, however, his personal dealings with those that do wrong to his person, are concerned, he is the most forgiving, especially in cases where these wrongs come to him in the course of his preachings.

The cruelty of his opponents at the close of the controversy at Kashi has already been debated upon. At Amritsar, while he was delivering a discourse to a large and heterogenous audience, a section of hearers appears to have taken offence at his bold denunciation of superstitious untruths. They began to throw brickbats at him. He, however, remained firm where he was, saying with a complaisant smile that where that day stones were showered, time would come when people would welcome him with a shower of flowers. The prophecy, if not fulfilled in his own case, has come true in the case of his followers. The latter have many a time been garlanded amidst highly enthusiastic audiences of Amritsar.

At Wazirabad, too, a similar incident is reported to have taken place. There a piece of stone struck his forehead, whence blood began to ooze. The rishi wiped off the blood with his handkerchief, and went on with his lecture.

How Rao Karan Singh attacked him with a sword, and when repulsed in the onset was spared by the rishi, has been noticed in a previous chapter.

The climax was reached when attempts at poisoning the rishi were discovered by his devotees and the culprits let go as a result of his sweet magnanimous commands to that effect.

A Brahman at Anupshahr one day brought to him a betel leaf, which the rishi readily took and began to chew. Something in its taste, however, made him suspect there was poison in it. He forthwith stood up, and without letting an inkling drop to those that sat round, went straight to the river which flowed by. Among the exercises of yoga, of which he had learnt a great many during his early wanderings, there was one *Neoli Karma*. This exercise he performed with the water of the Ganges, and thus disgorged what of betel had by that time passed down his throat. The Brahman had in the meantime fled from the rishi's hut, but the rascally attempt he had made became known in no time. Now the Tahsildar of the place, a Mohammedan, Sayyad Muhamad by name, was an admirer of the Swami. As he heard of the horrid happening, he was quite upset, and the whole machinery of investigation and inquiry he set in motion to find out the poisoner of the Swami. And he succeeded in getting hold of the fellow. Binding him up with fetters he brought him to the residence of the Swami, and said; the days of the wretch had apparently been numbered, for law would surely condemn him to death.

Did this sight please the Swami--the sight of humble devotion by a Mohammedan admirer of his ? It did. Only, the devotion was misplaced. It had placed a man, a fellow-being of Dayananda, in chains. The rishi instead of evincing his gratification, reprimanded the Tahsildar. "Liberty is my mission. I have come to loosen, not to fasten afresh the chains of humanity." Such was the stern and yet loving and lovable rebuke that the Saviour of man administered to one, who had, in his name, fettered a fellow-human being. The sight was for gods to see and bless.

A similar scene was enacted when the Sage lay affected by a similar dose of poison, this time beyond even his yogic capacity to disgorge it. Death, in this case, was certain. Mercy is easier to exercise when at least one's own life is safe from danger. There is a sense of hilarity consequent on a man's own escape from death. He may celebrate the occasion with a magnanimous award of forgiveness to his

would-be assassin. It is under the dreadful shadow of death that the tenderness of a human soul, however loving and broad-minded, is subjected to a severe test. And yet Dayananda had not the least hesitation in giving Jagannath, when poisoned beverage was making its tragic effects already felt in his bowels, not only a free pass out of his house at a time when none would detect him, but some amount of money also, with which he might make good his escape from the territory of the British Sarkar. Later when the memory of the Sage had made him an idol of his people, Jagannath is said to have been observed weeping. The idea seemed to have taken possession of him that he had put premature end to the life of a humanitarian sage, for which sin there could be no expiation. Ah ! he had ruined himself—ruined his very soul ! Was not the mercy of the Sage severe punishment, and in the guise of a punishment a sure reformation as well.

CONTEMPORARY THOUGHT REVIEWED.

MOTHERS' MARKS.

1. ON THE BODY.

Dr. Napheys, from whose book we made quotations in the last issue, has the following observations as regards the marks that the mentality of a mother leaves on the bodies of her offspring :—

Influence of mind of mother on form and colour of infant.—There are numerous facts on record which prove that habitual long-continued mental conditions of the mother at an early period of pregnancy, induce deformity or other abnormal development of the infant.

Professor William A. Hammond of New York relates the following striking case, which occurred in his own experience, and which scarcely admits of a doubt as to the influence of the maternal mind over the physical structure of the foetus.

A lady in the third month of her pregnancy was very much horrified by her husband being brought home one evening with a severe wound of the face, from which the blood was streaming. The shock to her was so great that she fainted, and subsequently had a hysterical attack, during which she was under Dr. Hammond's care. Soon after her recovery she told him that she was afraid her child would be affected in some way, and that even then she could not get rid of the impression the sight of her husband's bloody face had made upon her. In due time the child, a girl, was born. She had a dark red mark upon the face, corresponding in situation and extent with that which had been upon her father's face. She also proved to be idiotic.

Professor Dalton of New York states that the wife of the janitor of the College of Physicians and Surgeons of that city

during her pregnancy, dreamed that she saw a man who had lost a part of the ear. The dream made a great impression upon her mind, and she mentioned it to her husband. When her child was born, a portion of one ear was deficient, and the organ was exactly like the defective ear she had seen in her dream. When Professor Dalton was lecturing upon the development of the foetus as affected by the mind of the mother, the janitor called his attention to the foregoing instance. The ear looks exactly as if a portion had been cut off with a sharp knife.

Professor J. Lewis Smith of Bellevue Hospital, Medical College, New York, has met with the following cases :—An Irish woman, of strong emotions and superstitions, was passing along a street, in the first months of her pregnancy, when she was accosted by a beggar, who raised her hand, destitute of thumb and fingers, and in 'God's name' asked for alms. The woman passed on, but, reflecting in whose name money was asked, felt that she had committed a great sin in refusing assistance. She returned to the place where she had met the beggar, and on different days, but never afterwards saw her. Harassed by the thought of her imaginary sin, so that for weeks, according to her statement, she was distressed by it, she approached her confinement. A female infant was born, otherwise perfect, but lacking the fingers and thumb of one hand. The deformed limb was on the same side, and it seemed to the mother to resemble precisely that of the beggar. In another case which Professor Smith met, a very similar malformation was attributed by the mother of the child to an accident occurring, during the time of her pregnancy, to a near relative, which necessitated amputation. He examined both of these children with defective limbs and has no doubt of the truthfulness of the parents. He successfully removed a supernumerary thumb

from an infant, whose mother, a baker's wife, gave the following history:—No one of the family, and no ancestor, to her knowledge, presented this deformity. In the early months of her pregnancy she sold bread from the counter, and nearly every day a child with a double thumb came in for a penny roll, presenting the penny between the thumb and the finger. After the third month she left the bakery, but the malformation was so impressed upon her mind, that she was not surprised to see it reproduced in her infant.

In all these cases the impression was produced in the early months of pregnancy; but many have been recorded in which malformations in the infant appeared distinctly traceable to strong mental emotions of the mother only a few months previous to confinement, these impressions having been persistent during the remaining period of the pregnancy, and giving rise to a full expectation on the part of the mother that the child would be affected in the particular manner, which actually occurred. Professor Carpenter, the distinguished physiologist, is personally cognisant of a very striking case of the kind which occurred in the family of a near connection of his own.

All the above instances have been those of the effects of persistent mental emotion. But it is also true that *violent and sudden emotion* in the mother leaves sometimes its impress upon the unborn infant, although it may be quickly forgotten.

It is related on good authority that a lady, who during her pregnancy was struck with the unpleasant view of leeches applied to a relative's foot, gave birth to a child with the mark of a leech coiled up in the act of suction on the intended spot.

Dr. Delacoux of Paris says that, in the month of January 1825, he was called to attend a woman in the village of Bati-gnoles, near Paris, who the evening before had been delivered of a six month's

fœtus, horribly deformed. The upper lip was in a confused mass with the jaw and the gums, and the right leg was amputated at the middle, the stump having the form of a cone. The mother of this being, who was a cook, one morning, about the third of her pregnancy, on entering the house where she was employed, was seized with horror at the sight of a porter with a hare-lip and an amputated leg.

At a meeting of the Society of Physicians which was held at Berlin, Herr Dupre stated that a woman saw, in the first weeks of her third pregnancy, a boy with a hare-lip; and not only was the child she then carried born with a frightful hare-lip, but also three children subsequently. Another one a woman in the fifth week of pregnancy, saw a sheep wounded, and with its bowels protruding. She was greatly shocked, and did not recover her composure for several days. She was delivered at term of a child, in other respects well developed, but lacking the walls of the abdomen.

Many remarkable instances have been collected of the power of *imagination* over the unborn offspring.

Ambrose Pare, the illustrious French surgeon of the sixteenth century, in one of his treatises devotes a chapter to the subject of 'monsters which take their cause and shape from imagination,' and was evidently a strong believer in this influence.

A black child is generally believed to have been born to Marie Therese, the wife of Louis XIV, in consequence of a little negro page in her service having started from a hiding-place and stumbled over her dress early in her pregnancy. This child was educated at the convent of Moret near Fontainebleau, where she took the veil, and where, till the shock of the Revolution, her portrait was shown.

Examples are given by authors of the force of *desires* in causing deformities

infants, and the formation upon them of fruits, such as apples, pears, grapes, and others, which the mother may have longed for.

The following is related upon excellent medical authority:—A woman gave birth to a child with a large cluster of globular tumours growing from the tongue, and preventing the closure of the mouth, in colour, shape and size exactly resembling our common grapes; and with a red excrescence from the chest, as exactly resembling in figure and appearance a turkey's wattles. On being questioned before the child was shown to her, she answered, that while pregnant she had seen some grapes, longed intensely for them, and constantly thought of them; and that she was also once attacked and much alarmed by a turkey-cock.

Dr. Demangeon of Paris quotes, in his work on the Imagination, the *Journal de Verdun*, as mentioning the case of a child, born at Blois, in the eyes of which the face of a watch was distinctly seen. The image was situated around the pupil, and the figures representing the hours were plainly perceived. The mother had experienced a strong desire to see a watch whilst she was pregnant with this child.

2. ON THE CHILD'S MIND.

The mind of the child, too, is similarly effected. Says the doctor :—

Influence of the mind of the mother on the mind of the infant; which subject we have not yet touched upon, having confined ourselves to the influence of the maternal mind over the form and colour of the unborn child. It will not be necessary to illustrate at length this branch of our topic. Instances are sufficiently common and well known. Dr. Seguin of New York, in his work on Idiocy, gives several cases in which there was reason to believe that fright, anxiety, or other emotions in the mother, had produced idiocy in the offspring. As he remarks, 'Impressions

will sometimes reach the foetus in its recess, cut off its legs and arms, or inflict large flesh wounds before birth,—inexplicable as well as indisputable facts, from which we surmise that idiocy holds unknown though certain relations to maternal impressions.'

We have given many strong cases and most excellent authority for the doctrine that the purely mental influence of the mother may produce bodily and mental changes in the unborn infant. But the child is also affected by *physical impressions made upon the mother*.

Dr. Russegger reports that a woman, who had already borne four healthy children, was, in the seventh month of her pregnancy, bitten in the right calf by a dog. The author saw the wound made by the animal's teeth, which wound consisted of three small triangular depressions by two of which the skin was only slightly ruffled; a slight appearance of blood was perceptible in the third. The woman was at the moment of the accident somewhat alarmed, but neither then nor afterwards had any fear that her foetus would be affected by the occurrence. Ten weeks after she was bitten, the woman bore a healthy child, which however, to the surprise of every person had three marks corresponding in size and appearance to those caused by the dog's teeth in the mother's legs, and consisting like those, of one large and two smaller impressions. The two latter, which were pale, disappeared in five weeks; the larger one had also become less, and was not so deep coloured as it was at birth. At the time of writing, the child was four months old.

Dr. S. P. Crawford of Greenville of Tennessee, reports, in a recent number of the *Nashville Journal of Medicine*, the following sad case:—A lady, in the last stage of pregnancy, was burned by the explosion of a kerosene-oil can. She lived twelve hours after the accident. The face, legs, arms, and abdomen were badly burn-

ed. The movements of the child, were felt three or four hours after the accident. A short time before the death of the mother she gave birth to the child at full maturity, but still-born. It bore the mark of the fire corresponding to that of the mother. Its legs, arms and abdomen were completely blistered, having all the appearance of a recent burn.

These instances of a decided influence exerted upon the body and the mind of the child in the womb, by physical and material impressions made upon the mother, might be doubled or trebled. They are as numerous as they are wonderful. Physiologists of the present day do not hesitate to admit the existence of the influence we have been discussing. Reason also comes to the support of facts, to demonstrate and establish its reality. For if a sudden and powerful emotion of the mind can so disturb the stomach and heart as to cause vomiting and fainting, is it not probable that it can affect the womb and the impressible being within it? Pregnancy is a function of the woman as much as digestion or pulsation of the heart; and if latter are controlled by moral and mental impressions, why should not the former be also?

EDUCATION IN THE WOMB.

The first school of the child is the womb of the mother.

The outlines drawn by the artist Flaxman are esteemed the most perfect and graceful in existence. From earliest childhood he manifested a delight in drawing. His mother, a woman of refined and artistic tastes, used to relate that for months previous to his birth she spent hours daily studying engravings, and fixing in her memory the most beautiful proportions of the human figure as portrayed by masters. She was convinced that the genius of her son was the fruit of her own self-culture. What a charming idea is this? What an incentive to those about to become mothers to cultivate refinements;

high thoughts, pure emotions, elevated sentiments! Thus they endow their children with what no after education can give them.

The plastic brain of the foetus is prompt to receive all impressions. It retains them, and they become the characteristics of the child and the man. Low spirit, violent passions, irritability, frivolity, in the pregnant woman, leave indelible marks on the unborn child. So do their contraries; and thus it becomes of the utmost moment that during this period all that is cheerful, inspiring and elevating should surround the woman. Such emotions educate the child: they form its disposition, they shape its faculties, they create its mental and intellectual traits. Of all education, this is the most momentous.

SHOULD WOMEN MARRY?

In these days of liberty, when persons of both sexes are eager to slip all sorts of collars, marriage appears to women to be a sort of bondage. Those especially, who get educated, are more fond of learned pursuits and free professions, with which confinement within the four walls of a household is incompatible. How this ambition of women stands the test of their natural physical requirements is thus stated by the learned doctor:—

A few words, ere we pass to another branch of our subject, on the physical relations of her who by choice or other reasons never marries. It is a common observation among physicians who have devoted themselves to the study of woman's physical nature, that, inspite of those 'perils of maternity,' which we have taken no pains to conceal, the health of single women during the child-bearing period is, as a general rule, not better, not even so good, as that of their married sisters. Those insurance companies who take female risks, do not ask any higher

premium for the married than the unmarried.

Various suggestions have been made to account for this unexpected fact. Some writers have pointed out that in many diseases marriage exerts a decidedly curative influence especially in chronic nervous ailments. Chorea, for instance, or St. Vitus' dance, as it is popularly termed, has been repeatedly cured by marriage. As a rule, painful menstruation, which always arises from some defect or disease of the ovaries or adjacent organs, is improved, and often completely removed, by the same act. There are, as is well known, a whole series of emotional disorders,.....hysteria, and various kinds of mania and hallucination,—which are almost exclusively confined to single persons, and only occur in the married under exceptional circumstances. An instance has lately been detailed in medical journals by a Prussian physician of a case of undoubted hereditary insanity which was greatly benefitted—indeed, temporarily cured—by a fortunate nuptial relation. Few who have watched a large circle of lady acquaintances but will have observed that many of them increased in flesh and improved in health when they have been married some months. An English writer of distinction accounts for these favourable results in a peculiar manner. Success, he says, is always a tonic, and the best of tonics. Now to women, marriage is a success. It is their aim in social life; and this accomplished, health and strength follow. We are not quite ready to subscribe to such a sweeping assertion, but no doubt it is applicable in a limited number of cases. Our own opinion is, that nature gave to each sex certain functions, and that the whole system is

in better health when all parts and powers fulfil their destiny.

Common proverbs portray the character of the spinster as peevish, selfish, given to queer fancies and unpleasant eccentricities. In many a case we are glad to say this is untrue. Instances of noble devotion, broad and generous sympathy, and distinguished self-sacrifice are by no means rare in single women. But take the whole class, the popular opinion, as it often is, must be granted to be correct. Deprived of the natural objects of interest, the sentiments are apt to fix themselves on parrots and poodles, or to be confined within the breast, and wither for want of nourishment. Too often the history of those sisterhoods who assume vows of singleness in the interest of religion, presents to the physician the sad spectacle of prolonged maladies, and to the Christian that of a sickly sensibility.

In this connection we may answer a question not unfrequently put to medical attendant. Are those women who marry late in their sexual life more or less apt to bear living children than the married of the same age? and are they more or less likely to prolong their child-bearing period by their deferred nuptials? To both these inquiries we answer, No. On the contrary, the woman who marries a few years only before her change of life, is almost sure to have no children who will survive. She is decidediy less apt to have any than the woman of the same age who married young. If therefore, love of children and a desire for offspring form, as they rightly should, one of the inducements to marry, let not the act be postponed too long; or it will probably fail of any such result.

EDITORIAL REFLECTIONS.

RELIGIOUS TOLERANCE.

Religious tolerance is thought to be a laudable characteristic of the Hindu. It makes him sweet as a comrade—his company is never offending. Religious intolerance is, on the other hand, an equally formidable attribute of the Muhammedan. He is, on account of his religion, a repellent co-worker. These diametrically opposite traits of the members of the two communities are typified in the administrative policy of two of the rulers of native states, one a Hindu, and the other a Muhammedan. Gwalior, if on account of the religious creed of its ruler we can characterise it as such, is a Hindu state, while Bhopal, similarly characterised, is Muhammedans territory. Among subjects of both the rulers there are large number of people whose religion differs from that of the ruling chief. The influence of the religious views of rulers on their administration should, if such influence be unavoidable, be to purge their territories of vices which every religion prohibits. Religiously minded potentates should make it a point to emphasise purity of morals in their realm. They should never be prejudiced in favour of their co-religionists, so as to endanger the interests of those that profess and follow other faiths. The revenues of all states are derived from the earnings of their inhabitants, irrespective of what creed or caste the latter belong to. Profession of a religion cannot exempt a person or a group of persons from the duty of tax-paying. In cases where it does, it is invariably

the privilege of the co-religionists of the ruler to be so exempted. The sinews of the government are thus supplied, in the majority of cases, mainly by those of its subjects who differ in their religious belief from the class that presides over its political affairs. The burden on them is in most cases incommensurate—incommensurate on the side of excess—to their paying capacity. In logical justice, therefore, they deserve greater amenities and greater concessions from the administration. This should hold good where religious prejudice has its way. In an ideal government, on the other hand, assessment of taxes should be made proportionate to the means of the payers. Religion can neither be the privilege of a favoured class nor can it handicap a group whom their religious creed subjects to a political ban. Even as payments are to be proportioned to the means of the payers, so too, should the blessings of the government be evenly divided among all sects.

Are they so divided in the states of Gwalior and Bhopal?

A recent publication in the newspapers tells a very strange story of the mutually divergent state of things that obtains in these territories.

The Maharaja of Gwalior is said to be tolerant to his Muhammedan subjects, perhaps too much so. In the compound of his palace, side by side with a *mandir* there stands a mosque. Equal concessions in the form of free light, etc. are granted to both the buildings. He eschews food prohibited by the Muhammedan

shar'a. He attends Islamic festivals, holds *darbars* in honor of these, and conducts himself on such occasions very much as a Muhammedan ruler would do in his place.

We had occasion, a few days ago, to visit the capital of the state of Kapurthala. That state, too, is under a Hindu ruler, and if reports received about his administration are to be credited, he evinces the same excess of sympathetic regard for the religious feelings of his Muhammedan subjects. The mode of concessions may vary, but the over-solicitousness to ingratiate the Muhammedan is the same in both cases. In Kashmir we heard of a Hindu *mandir*, demolished by Muhammedan fanatics with perfect impunity.

Such is the tale of tolerance, repeated in its broad outlines, as you study, one after another, the mode of governance of almost all states ruled by Hindu Rajas. Contrast with it the news we hear about the response of the enlightened (?) Begam of Bhopal, with which that gifted lady met the request of her Hindu subjects for certain concessions as regards the celebration of Dussehra Idols, she said, that had been smashed by her predecessors, the kings of Islam, could not be reinstated by her without danger to her salvation after death. There is, it is said, a general ordinance in that state, that no new temples can be built within its limits. If what report says is true, we do not know how to characterise the state of things it depicts. Is it intolerance or is it downright tyranny?

To us the conduct of both these sets of rulers, large-hearted Hindus as well as

narrow-minded Mohammedans, appears to be equally objectionable. We can praise neither the breadth of outlook, amounting almost to irreligion or absence of religion of the Maharaja of Gwalior, or for that matter, of any of his Hindu brethren that conducts himself, as he does, nor the utterly narrow sectarianism that so miserably possesses the political vision of the Begum of Bhopal. While in their capacity as rulers, religious neutrality would be the best code of conduct for these potentates, in their personal exercise of religion they are entitled to be as free as their subjects. Their office should not compel them to hold ceremonials and make professions of faiths, to which in their heart of hearts they cannot subscribe. Only, they should not be fanatics.

The treasury of the state is public property. While out of his personal allowance, a king or a prince is at liberty to patronise any faith, and make donations to any denomination, grants from the public exchequer should go evenly to the patronisation of all creeds.

While the Begum of Bhopal needs a strong dose of broad-minded liberality, the Maharaja of Gwalior and all the rajas of his ilk require as strong pills of staunchness in their faith. What is corroding the vitals of the Hindu, or as we rightly term it, Arya society to-day, is the absence of this staunchness. The Hindu imposes on himself unnecessary fetters which obstruct both him and his faith. Your broad-mindedness is thought to be another name either of cowardly adulation, or else of light-minded trifling with religion.

THE DIONYSIAN ORIGIN OF THE CHRISTIAN EUCHARIST.

Robert Eisher writing to the *Quest* traces the history of Eucharist from a Dionysian origin. Writes he :—

Indeed there is ample evidence to prove that the Ebionite party in the earliest Church, who probably followed the example of the first 'bishop' of Jerusalem,—Jesus' brother and successor, James the Just (Pious), a Nazir and as such sworn to strict abstinence from wine,—celebrated the Eucharist with water instead of wine, contrary to the example of Jesus. Consequently, if we meet with a story where the miraculous power of the 'guest' at the Messianic marriage-banquet (Rev. 19:7; Matth. 22:1ff) changes the very rinsing-water (Jn. 2:6) into wine, which the present text says was far superior to all the human vintages supplied by the host of his guests,—it seems quite obvious that the aim of it is to justify a eucharistic celebration, where simple water represents or is even supposed to be changed into the wine of the Last Supper, and the redeeming blood of the Saviour, by the words of consecration,—that is, by the miraculous power of the Logos.

The Ebionite character of the source from which the charming little idyllion is derived, becomes even more obvious, if we observe that the shocking maxim "Everybody (!) gives his guests worse wine, when the men are well drunk" (v. 10) does not belong to the original text, but is added by a vulgar Greek reader (of the same mentality as the one who added "they had no wine, because the wine of the marriage-feast had come to an end," or "it happened that the wine ran short, because of the crowd that had been invited") to the touchingly simple statement (in v. 3), that "there was no wine," "no wine could be served" (*oinou hysteresantos*), and "they have no wine"—meaning that they were too poor to afford it. Let us then correct this—

and the equally shocking and senseless usual mistranslation "Woman, what have I to do with thee" for the Aramaean "*Ma li walkh, nesha*"—and read anew the little tale of the helper of the 'poor people' (ebionim) as it was meant, instead of visualizing it after the manner of the sumptuous banquets painted by a Titian or Paolo Veronese under the title 'The Marriage-feast of Kana.'

And the third day there was a marriage in Kana and the mother of Jesus was there. And both Jesus was invited and his disciples to the marriage. And when wine was not forthcoming the mother of Jesus said to him: They *have* no wine! And Jesus said unto her: What concern [is that] of mine or thine, lady [mother]? My hour is not yet come. But his mother saith to the servers: Whatever he saith unto you, do. And there were set here six waterpots of stone according to the purification-rules of the Jews, containing two or three firkins a-piece. Jesus saith to them: Fill the waterpots with water. And they filled them up to the brim. Then he saith to them: Draw out now and bear to him who sits at the head of the table. And they bare [it].

When the guest at the head of the table had tasted the water that was made wine, and knew not whence it was,—but the servers who had drawn the water knew,—he called the bride-groom and saith to him: Everyman at the beginning setteth forth the good (delightful, enjoyable) wine; but thou hast kept the good wine until now!

"This beginning of signs did Jesus in Kana of Galilee and manifested forth his glory, and his disciples believed on him."

Most probably the mystic self-revelation, Jn. 15, which is now, quite fittingly, inserted into the farewell discourses of Jesus' Last Supper (see *QUEST*, xiii. July), but which is certainly a later interpolation therein, as it follows abruptly and without a word of introduction after the words "Arise and let us go

hence" (14—31st),—was originally the conclusion of the Kana-legend, even as the words "I am the bread of Life" are spoken in Kapharnaum as the sequel to the sign of the 'Five Loaves.' For the words concerning the 'good wine' reserved 'until now' manifestly allude to the Jewish belief, that the wine for the Banquet of the Last Days has been *reserved in grapes since the days of creation*,—an idea which is allegorized in the discourse on Jesus being the vine and his disciples the fruit-bearing branches.

"After this they went down to Kapharnaum, he and his mother and his brethren and his disciples (2—12). [And Jesus saith unto them (15—1) : I am the true vine Ye are the branches He that abideth in me bringeth forth much fruit.....]

Another important and hitherto neglected feature of the Kana-allegory is the fact, which is all the more remarkable for an obviously unhistoric legend, of its being so *exactly dated*: "On the third day" (2—1) "there was a marriage" This is the *third* after the one mentioned in 1—43 as 'the following day'; the *fourth* day after the one in 1—35, 'again the next day' the '*fifth* after the next day' of 1—29; consequently the *sixth* day of the whole gospel narrative.—that is to say the sixth day after the appearance of John the Baptist in Bethany (1—28). This dating by days must have a definite purpose; for it is not continued after the feast of Kana, when we read (1—12) : They stayed there 'not many days'. Moreover this purpose is transparent, seeing that the Church has always celebrated the 'manifestation of His Glory' (2—11), the 'Epiphany,' and the miracle of Kana, on the *sixth* of January, the sixth day of the ecclesiastical year. Now this very day is the day of the Pagan '*hydreusis*'-feast. This was the day of drawing and carrying in procession the sacred water—the very day when Dionysos was supposed to perform his typical miracle of changing into wine this holy water in the locked-up jars of his sanctu-

ary and in certain springs or pools (Epiphanius, *Panarion* 51 ; Plin. *Nat. Hist.* i. 231).

This proves that the Christianizing of this Dionysian feast, the Theodaisia, as it was called, on January 5/6 (it is properly a night-vigil), which the present writer has treated in detail in the unpublished second volume of his *Orpheus* (a MS. copy of which is deposited in the British Museum), was already an accomplished fact, when the author of the 4th gospel inserted the Kana-miracle into the chronological frame of the narrative. Indeed a great quantity of archaeological matter, which Prof Grill has left out of consideration, could be grouped with this fact, and would serve as an instructive background to the valuable and interesting comparative results of his present volume.

In the second half of vol. ii, which treats of the 'mystery-character' of the 4th gospel, I am astonished moreover to find that the author has overlooked the most striking argument he could have put forward for his thesis: namely, the dead silence of 'John' on the words and deeds by which Jesus at the Last Supper instituted the Eucharist. There can be no doubt that 'John' was not ignorant of this central rite of the Messianic Church, its fundamental importance and its spiritual signification, witness the Kana-miracle itself and the discourses after the miracle of the Five Loaves. Consequently his remarkable silence cannot be anything else but a feature of the *disciplina arcani*, the severely enjoined mystery-secrecy which from a very early time enveloped the central sacraments of the new Messianist Church.

COW-KILLING UNDER MUSLIM RULE.

Thus Dr. Syed Mahniud Ph. D. in the course of an article which he contributes to the *Indian Review*, August issue :—

From the every inception of Muslim rule a special tax was imposed on butchers

for the slaughter of cows to the extent of 12 "Jetal" per cow. During the reign of Feroz Shah, butchers complained against this tax and the king abolished it. Details of this taxation are not given in books of history, but its object could only have been the prevention of cow slaughter. This tax, therefore, continued for two hundred years after the establishment of Muslim rule in India, right up to the time of Feroz Shah Tughlak. Instead of issuing a general order prohibiting cow slaughter, this was the method adopted by early Mohammadan kings. This tax was called Jazari. At the time of Mohamad Shah Tughlak, beef was not cooked in the royal kitchen, and the king did not take it. Several authors have given detailed descriptions of the royal kitchen, but there is no mention of slaugthering cows. Farhatul-mulk was appointed Governor of Gujerat, and continued in that capacity also during the reign of the next king Mohamad Ghias-ud-Din Tughlak, the Second. Historians state that Farhat-ul-mulk made various concessions to the Hiudus, and did not allow the slaughter of cows. The Hindu wielded great influence during the reign of Sultan Nasir-ud-Din Khushro. This king totally stopped the killing of cows in his territories. It also seems that the Jazari tax, which had been discontinued by Feroz Shah Tughlak, was re-imposed after his reign, because it is recorded in books of history that Akbar abrogated this tax. Akbar ordered a total prohibition of the killing of cows, and the tax was no longer found necessary and it was probably on that account that it was discontinued.

When the Moghuls established their rule in India and Babar ascended the throne, he not only found out the depth of Hindu feeling in this matter during his few years' reign but also wrote out a confidential will for his son Humayun, in which he referred to his religious belief of the Hiudus and exhorted him to prevent the killing of cows. The original copy of this document is preserved in the State Library at Bhopal, and a photo

of it has been made available to me through the courtesy of Nawab Col. Hamid Ullah Khan Sahib. The following is a translation of the document:—

"O my son: People of diverse religions inhabit India: and it is a matter of thanks-giving to God that the King of Kings has entrusted the government of this country to you. It, therefore behoves you, that:—

(1) You should not allow religious prejudices to influence your mind, and administer impartial justice having due regard to the religious susceptibilities and religious customs of all sections of the people.

(2) In particular, refrain from the slaughter of cows, which will help you to obtain a hold on the hearts of the people of India. Thus you will bind the people of this land to yourself by ties of gratitude.

(3) You should never destroy the places of worship of any community and always be justice-loving so that the relations between the king and his subjects may remain cordial and there be peace and contentment in the land.

(4) The propagation of Islam will be better carried on with the sword of love and obligation than with the sword of oppression:

(5) Always ignore the mutual dissensions of Shias and Sunnis, otherwise they will lead to the weakness of Islam.

(6) Treat the different peculiarities of your subjects as the different seasons of the year, so that the body politic may remain free from disease.

Akbar issued orders totally prohibiting the slaughter of cows throughout his vast dominions. There is detailed mention of it in the *Ain-i-Akbari* and other books. These orders were not abrogated in the times of his successors, but remained in force, though it is possible that in the reign of latter kings they were not so rigidly enforced. Jahangir not only did not abrogate these orders but further

ordained that on Sunday the day on which Akbar was born, and on Thursdays, on which he himself ascended the throne, no animal whatsoever should be killed and there should be no hunting on those days.

Sir Thomas Roe, who came to the court of Jahangir as the ambassador of James I, writes that Jahangir frequently visited Hindu Yogis; and on one occasion he himself saw a Hindu Yogi in rags sitting by the side of the king in open durbar, and the king talked to him with the utmost respect addressing him as "father,"

ISLAMIC MARRIAGE.

Reviewing a book by Prof. A. S. Wadia, Sir Ahmed Hussain, K. C. I. E., C.S.I. makes the following very interesting remarks on marriage in Islam ;—

Marriage among Muslims is not a sacrament. It is a civil contract pure and simple. It is, in fact a contract of mutual guarantee of protection by the husband and obedience by the wife and also a contract of indemnity which entails payment by the husband of dower and alimony. There is nothing "inherently right" or "inherently wrong" in this double contract which a Muslim marriage implies. It should be judged solely by two considerations : 1st whether it is against the public opinion of the age and country, and 2ndly, whether it is in accordance with the good conscience of the parties concerned. Polygamy was not against the public opinion or policy of the age in which Muhammad lived. Yet he was ahead of his time when he limited it to four wives. It is, in the twentieth century, decidedly against the public opinion and policy which condemn marrying more than one wife chiefly because it interferes with the good upbringing of children, the future citizens of the State. As a matter of fact monogamy is the rule and polygamy is but a rare exception among Muslims in civilized countries all over the world. The question of good conscience is settled by the Quran which

says that a man may marry two, three or four (but not more) wives if (and only if) he can be just to them all ; but if cannot, then he should marry only one wife. Here comes Mr. Syed Ameer Ali's interpretation of the word "just." He says it means *conscientiously just*, while others say it means only *legally just*. He insists that since no man can possibly be conscientiously just to more than one wife, Muslims are not allowed to marry more than one wife except in the rare case of the wedded wife, by reason of insanity or physical defect, becoming incapacitated for conjugal life. Other Muslims dissent from this strict interpretation and say that as long as a man is able to be legally just, i. e., be able to make provision *impartially* for the maintenance and comfort of all his wives, he can have at one and the same time any number of wives not exceeding four. The fact, however, remains, and must be frankly admitted, that Islam allows polygamy, but restricts it to four wives with a "conscience clause" which if strictly interpreted, means virtual monogamy.

BACK TO BRAHMANISM.

This is the caption of a note appearing in a recent issue of *the Hindu*, Madras. We cull from it an extract which, we hope, will interest the reader as it will prove to him that lithargy-in Hinduism, which has so long been the bane of the community, is at least vanishing, and an important reform which Dayananda so forcibly urged, is finding support now even in orthodox circles :—

For the first time in the history of Kumbakonam a great orthodox Brahminic centre, there took place in Sri Ramaswami Koil this morning (7th October) a most pleasant and religious function of approving the action of Sri Vidwan Tathachariar of Sriperambudur in reclaiming Mr. K. T. Krishnaswami Iyengar back to Hinduism and Brahminism. A large gathering of orthodox pandits were present including Kotikannikathanam Vajapeyam Veeraraghava

gavachariar Swami, Sri Srinivasachariar, son of Mahamahopadhyaya the late Rangachariar, Vidwan Patrachariar and other pandits of both Iyengar and Patrachariar streets. In addition, there were present Messrs. C. R. Lakshmivaraha Iyengar, Professor K. Sundararama Iyer, R. Soundraraja Iyengar, S. Mahalinga Iyer and some other vakils. Mr. K. T. Krishnaswami Iyengar was present there with his father and brother. Vajapeyam Veeraraghavachariar in opening the proceeding said that Mr. K. T. Krishnaswami was taken back to the Brahmin fold by Vidwan Thathachariar of Sripurumbudur after consulting the Shastras. The Shastras clearly laid down that a man must be absolved from his sins by proper prayaschitta when he sincerely exhibited feelings of repentance. *The Smriti of the sage Parasara was a great authority in Kaliyuga* and according to that a mlencha might be properly purified by certain homans and prayaschittas. He said that he had also consulted other great pandits like Swami Seemachar, Swami Patrachari and Sri Thathachariar and all of them accorded him sanction to approve the conduct of Sri Thathachariar of Sripurumbudur. Though most of the important ceremonies have been already done it was his opinion that Kushmanda Homam and Panchagavya Pasanam must also be per-

formed. Finally he requested the great assembly of orthodox people present there to consider the question in all its aspects and give out their opinions.

Professor K. Sundararama Iyer in seconding Vidwan Viraraghavachariar said that the time had come for them to bind together and protect their religion from being interfered with by others.

After some more speeches, Rao Sahib C. R. Lakshmivaraha Iyengar invited the pandits' considered opinion on the matter. After consultation among themselves and also having been satisfied at the Shastric explanations offered by the various speakers, the pandits gave their unanimous support to the proposal. They then affixed their signatures to the resolutions giving sanction for reconversion.

From the report it is clear that the personnel of the assembled pandits could not be more weighty. Prof. K. Sundararaman has been for years leading the opposition to the measures commended by the social reformers and it must be a matter for sincere congratulation to all interested in the well-being of Hindu-society to find that the learned professor has found his way to move with the times. The pandits are reported to have approved of reconversion of Hindus converted to other faiths and the approval necessarily carries great weight.

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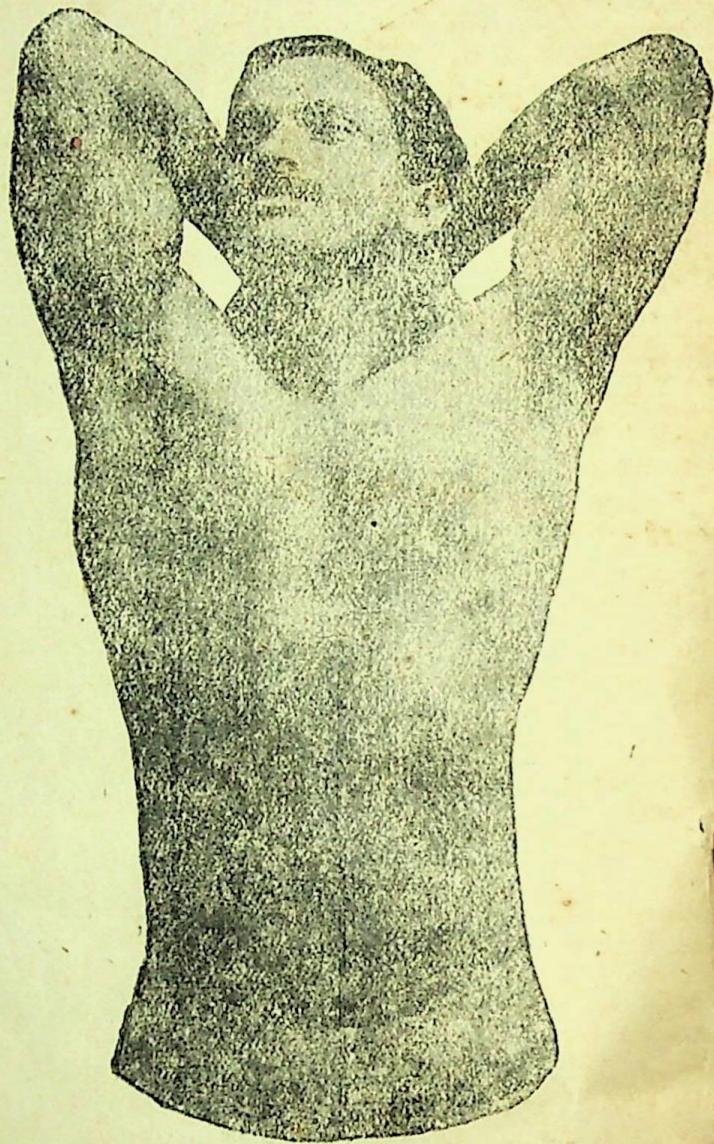
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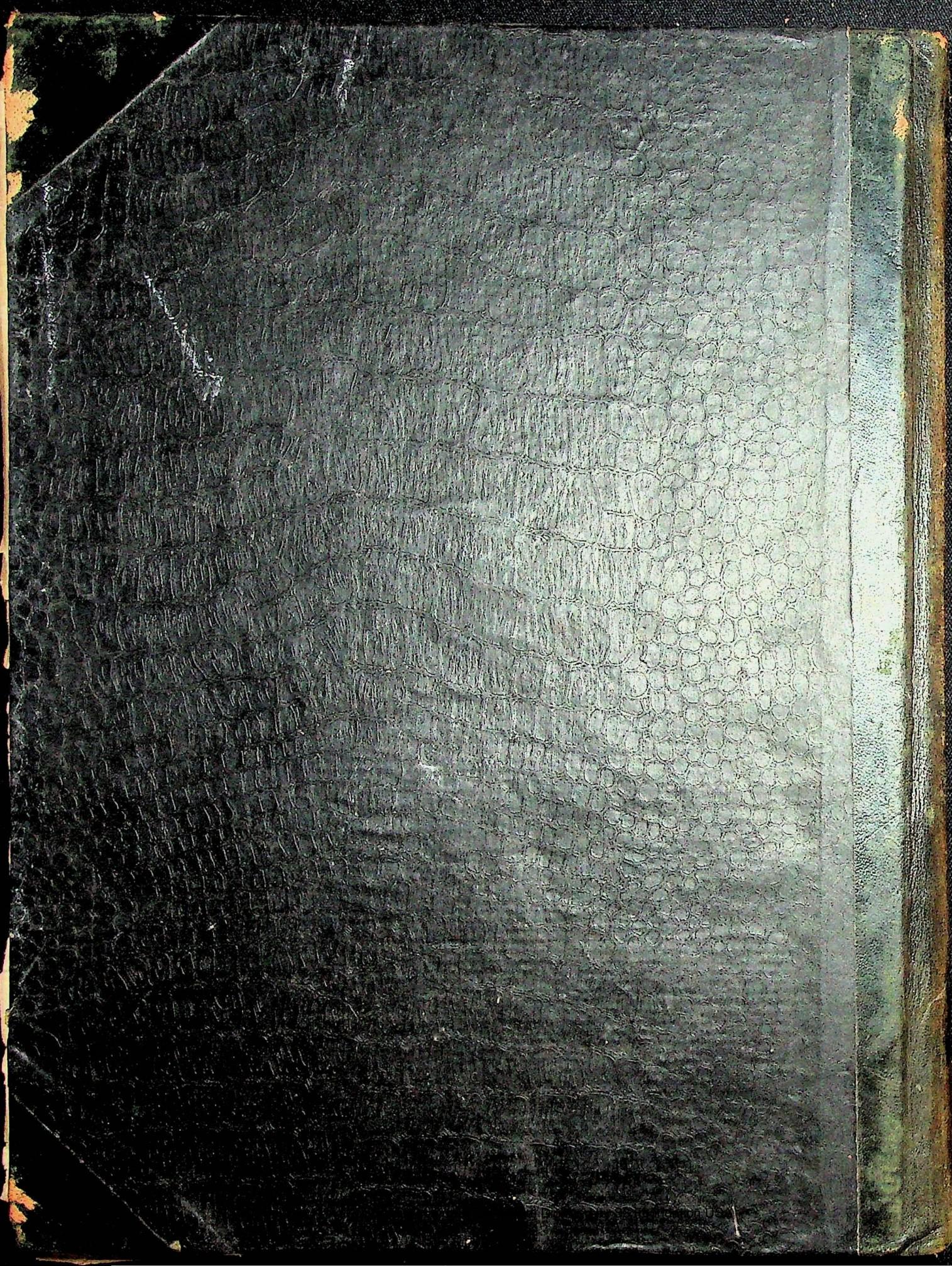
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